



Research Progress in the Treatment of Cholelithiasis with Traditional Chinese Medicine

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Abstract: Cholelithiasis is a common clinical disease of the biliary system, mostly characterized by right upper abdominal pain, chills and hyperthermia, and jaundice. The treatment of this disease is mainly surgical, but it is prone to complications such as recurrence of residual stones and surgical trauma. Chinese medicine has rich experience in the treatment of cholelithiasis, with the advantages of less trauma, better efficacy, lower side effects of drugs and lower cost, which is widely favored in clinical practice. In this paper, we review the research progress made in recent years in terms of the mechanism of action and clinical efficacy of Chinese medicine in the treatment of cholelithiasis.

Keywords: cholelithiasis, traditional Chinese medicine, gallstone, review

1. Introduction

Cholelithiasis, also known as gallstones, is a type of disease caused by abnormal composition and dysfunction of bile, leading to obstruction of the biliary system, and repeated infections leading to stones. Not only does the disease have a long course and recurring attacks, stones can also irritate the bile ducts and induce critical complications such as bile duct inflammation, bile duct bleeding, bile baskets, and even gallbladder perforation[1]. Laparoscopic cholecystectomy is the “gold standard” for the treatment of cholelithiasis, but patients also lose their gallbladder, which can easily induce postoperative syndromes such as decreased digestive function, biliary infection, and obstruction[2]. Although cholelithotomy can preserve the gallbladder, it is difficult for the damaged gallbladder to restore its normal physiological functions in the later stage, and may even cause recurrence of stones[3]. Traditional Chinese medicine treatment of cholelithiasis has the advantages of small side effects, low cost, and few complications. This article reviews the research progress of traditional Chinese medicine in treating this disease and provides new ideas for clinical diagnosis and treatment.

2. Traditional Chinese Medicine's understanding of the etiology and pathogenesis of cholelithiasis

There is no record of disease names such as “gallstone disease” in the traditional Chinese medicine works of the past dynasties. Instead, it is classified into the categories of “gallbladder distension”, “hypochondriac pain”, “jaundice” and other categories of traditional Chinese medicine based on clinical symptoms[4]. The causative factors of cholelithiasis are relatively complex, and the common ones include the entry of foreign evils, improper diet, emotional disorders, long-term illness and injury, and insect infection. Various causes cause and effect each other and influence each other, causing the liver and gallbladder to fail to discharge their duties. Dampness, heat, phlegm, blood stasis, accumulate in the gallbladder, causing bile to be blocked and blood stasis to stagnate in the biliary tract. Over time, it can turn into stones. This is gallstones. The basic pathogenesis of the disease[3]. However, the principle remains unchanged, and the methods of promoting qi, guiding stagnation, soothing the liver, promoting gallbladder and removing stones are the basic principles throughout the diagnosis and treatment of cholelithiasis.

3. Internal Treatment Methods of Traditional Chinese Medicine

3.1 Treatment with classic prescriptions

Jingfang refers to the prescriptions recorded in classical medical prescription works before the Han Dynasty, with *Treatise on Febrile Diseases* and *Synopsis of the Golden Chamber* as the main representatives. Many famous doctors have made good use of

classic prescriptions such as Dabuihu Decoction and Yinchenhao Decoction to treat cholelithiasis and have achieved considerable results. Research by Chen Jiajun and others found that Da Chaihu Decoction can significantly promote the recovery of gallbladder contraction function and reduce cholestasis by regulating the balance of bile acids and liver lipids in the treatment of chronic calculus cholecystitis, thus playing a role in treating gallbladder stones in chronic cholecystitis[5]. Wang Yanping used Dachaihu decoction to treat 70 cases of cholecystitis and cholelithiasis, which further confirmed that Dachaihu decoction has the effects of soothing the liver and relieving stagnation, relieving Shaoyang, and diarrhea and heat knots. It can relieve depression and irritability by regulating the patient's emotions and other physiological states, which greatly reduces the probability of illness caused by internal injuries of the seven emotions, promotes bile excretion, and reduces the tendency of stone formation[6]. Through pharmacological research, Wang Tiangang found that Da Chaihu Decoction can promote enterohepatic circulation, clear cholestasis, reduce bile acids, cholesterol, blood calcium and other biochemical indicators, improve the dynamic microenvironment of the biliary tract, and has the effects of protecting the liver, promoting bile ducts, and dissolving and dissolving stones function[7]. Modern pharmacological research shows that Yinchenhao Decoction can act on liver enzymes and proteins, not only regulating bile acid and liver lipid balance, but also enhancing gallbladder contraction, promoting bilirubin metabolism, reducing cholestasis, and reducing stone formation [8].

3.2 Prescription treatment

Prescriptions refer to ready-made prescriptions that have undergone extensive clinical trials and have significant curative effects but are not recorded in classical works. They are also called "self-made prescriptions". Professor Qiu Jian, a nationally renowned traditional Chinese medicine doctor, formulated his own gallstone prescription based on the treatment program of soothing the liver, promoting gallbladder and removing stones. After 3 months of follow-up, he found that the symptoms of abdominal pain, bloating, nausea and other symptoms of cholelithiasis patients had disappeared. A follow-up color ultrasound half a year later showed no results. It has the effect of repairing liver cell damage. While accelerating the excretion of bile and bile salts, it can also reduce bile stasis in the body and cause gallbladder stonestrend[9]. Han Kexin prepared Shugan Lidan Decoction to treat 60 cases of cholelithiasis. After 3 courses of treatment, they found that the total effective rate of the treatment group was higher than that of the control group (83.33%□57.69%). Shugan Lidan Decoction has antibacterial and anti-inflammatory effects, and can effectively inhibits biliary system infection, improves the bile duct microenvironment, blocks the vicious cycle of repeated infections and inflammation leading to stones, and effectively reduces the chance of stone recurrence[10].

4. Conclusion

Traditional Chinese medicine has a long history of treating cholelithiasis and has the advantages of non-invasiveness, minimal side effects, and low stone recurrence rate. However, traditional Chinese medicine prescriptions are often used in combination with multiple drugs and have the characteristics of multiple targets, multiple pathways, and multiple levels, making it difficult to elucidate the specific targets of traditional Chinese medicine. Moreover, the quality of clinical literature research is not high: there is a lack of large-sample, multi-center, randomized controlled trials, strict compliance with drug clinical trial management standards, and irregular clinical control designs. In the future, we should strictly follow the exploration mechanism of evidence-based medicine, conduct large-sample, multi-center sampling research, strengthen the exploration of the molecular biology level of traditional Chinese medicine, and conduct more thorough research on the pharmacology of single-body traditional Chinese medicine and the targeted mechanism of drug compatibility to develop high-efficiency and low-toxic traditional Chinese medicine preparations.

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