



Current Status and Development of Chinese and Western Medical Care for Non-alcoholic Fatty Liver Disease

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Abstract: Influenced by the fast pace and unhealthy living habits of modern society, the diagnosis rate of non-alcoholic fatty liver disease (NAFLD) has been increasing year by year, and the age structure of the patients is showing a younger age structure, which poses a serious challenge to public health safety. Currently, the specific pathogenesis of NAFLD is unclear, and there are differences in the understanding and treatment of NAFLD between TCM and Western medicine. The purpose of this paper is to analyze and compare the Chinese and Western medicine nursing strategies for NAFLD and the combination of Chinese and Western medicine in the treatment of NAFLD, as well as to explore innovative paths of nursing research, and then to develop a review, with the aim of providing a reference for the future Chinese and Western medicine clinical treatment.

Keywords: NAFLD, combined Chinese and Western medicine, nursing

1. Introduction

NAFLD is a cluster of stress symptoms of metabolic liver damage, such as dyslipidemia, decreased insulin tolerance and systemic inflammatory response, which are accompanied by large amounts of fat stored in the liver under a life state of continuous abstinence from alcohol[1]. The condition is triggered by multiple factors and is characterized by diffuse macrovesicular steatosis of hepatocytes, which causes significant damage to the liver function of patients, thus seriously affecting their daily work and quality of life[2]. According to a related study[3], the prevalence of NAFLD among adolescents and adults in the United Kingdom is approximately 20%~30%, which highlights the increasing severity of the disease. As a latent disease, the onset of NAFLD is insidious and slow, and most patients are asymptomatic in the early stages. However, in the advanced stages of the disease, patients may present with symptoms such as abdominal discomfort, fatigue and nausea[4]. Initial screening can be accomplished by performing a physical examination and risk assessment of body mass index and waist circumference. As the disease progresses, NAFLD has the potential to progress to nonalcoholic steatohepatitis and may become a major cause of cirrhosis and liver transplantation-related deaths in the terminal phase of the disease. Nonetheless, literature searches in recent years have indicated a relative scarcity of nursing research literature for this disease, and therefore, enhancing the effective involvement of specialty caregivers will be a key research direction for this patient population in the coming years.

2. Traditional Chinese Medicine (TCM) Care Methods

TCM studies have concluded that the main pathogenic causes of NAFLD include liver depression and qi stagnation, spleen failure, phlegm-dampness internalization, damp-heat accumulation, and blood stasis and obstruction[5]. Its treatment methods mainly include single-prescription therapy, specialized or basic prescription therapy, diagnosis and treatment, and proprietary Chinese medicines[6]. The clinical application of single prescription treatment is relatively less due to its poor effect. Specialized formula, basic formula treatment, and dialectic treatment are more commonly used Chinese medicine treatment methods. Dialectical treatment is outstanding, Chinese medicine treatment focuses on the identification of evidence, and the evidence of Chinese medicine consists of clinical manifestations, so there is no evidence if there is no symptom, however, in the clinic, patients with NAFLD, subjectively no obvious discomfort, and most of them are found by the physical examination. For this kind of patients, it should be analyzed on a case-by-case basis, according to different patients' dietary habits, living habits, personal constitution and other comprehensive analysis and combined with the results of laboratory tests in order to choose different remedies. Chinese medicine nursing operation methods include acupuncture therapy, acupuncture point embedded therapy, abdominal massage therapy, acupuncture point injection combined with patch therapy, etc[7]. Research[8] found that taking Fenglong, Liver Yu and other related acupoints for acupuncture point treatment

of fatty liver, the therapeutic effect is very good.

3. Western medicine approach to care

Western medicine believes that the occurrence of NAFLD is closely related to the development process of metabolic disorders in the internal environment, such as changes in blood glucose, blood lipids, biological clock gene disorders, and bone bridging proteins[9]. Therefore, patients should first be provided with health education to adjust their personal dietary structure and exercise habits to reduce body mass index. The current conventional treatment is balanced diet, physical exercise and weight loss. Zhou Bingqian[10] and others analyzed the preventive or predisposing effects of each dietary pattern, such as the Mediterranean diet, the Deschu diet, the energy-restricted balanced diet, the low-fat, low-carbohydrate diet, the Western diet, the animal food diet, and the traditional diet, on the prevention or predisposing effects of metabolism-associated fatty liver disease, and summarized the conclusion that a balanced diet is suitable for NAFLD. Another study[11] showed that physical exercise can prevent hepatic steatosis and hypertransaminasemia in NAFLD patients to some extent. However, patients need to perform moderate-intensity exercise at a frequency of 30-60 minutes, 3-5 days per week, resulting in an overall weight loss of 5-10% to achieve effective results. Secondly, there is no gold standard drug therapy for NAFLD, and hepatoprotective drugs, lipid-lowering drugs, lipid metabolism-promoting drugs, bile acid secretion-promoting drugs, and glucose-regulating and controlling drugs are common in the clinic[12]. Therefore, the treatment of NAFLD in western medicine is mainly through a balanced diet and weight reduction, and finally actively preventing complications such as cirrhosis to avoid further development of the disease.

4. Combined Chinese and Western medicine

Combination of Chinese and Western medicine therapies for the treatment of NAFLD is becoming more and more common in clinical practice. Combining Chinese medicine identification and typing therapy with Western medicine identification of the disease can take the best of both worlds in order to achieve better prevention and treatment of NAFLD in the clinic[13]. An Shenfu[14] and others used a combination of Chinese and Western medicine to treat 100 cases of NAFLD patients in the clinic. The control group was treated with reduced glutathione combined with metformin, and the treatment group was treated with angelica and peony powder on the basis of Western medicine, and the results showed that the effect of the treatment group was significantly better than that of the control group, confirming that the combination of Chinese and Western medicine has a better effect on the treatment of NAFLD. What's more, an investigation[15] found that the combination of Chinese and Western medicine therapy can effectively delay the process of liver fibrosis. Huang Jingjing[16] studied the application of acupuncture combined with fat reduction and slimming tea drink compared with the simple application of tea replacement and exercise therapy, respectively, to monitor the patients before and after the treatment of Chinese medicine evidence and liver ultrasound, body mass index and other indicators, the results show that the application of acupuncture therapy in the treatment group for NAFLD efficacy is more significant. He Chengbang[17] applied Chinese and Western medicine combined therapy to treat 98 patients in the clinic, and the control group used conventional Western medicine with oral polyenophosphatidylcholine capsule for oral administration, while the treatment group used combined lipid-lowering and liver-reducing soup and acupuncture therapy on the basis of Western medicine, and observed the Chinese and Western medicine indexes, and made comparisons. The results showed that the therapeutic effect of the treatment group was more significant, and the safety was higher than that of the control group. Qin Baitong[18] used a combination of Chinese and Western medicine therapy, and his control group received silymarin capsule treatment, and the observation group added lipid-lowering and liver-regulating soup treatment on this basis, and 107 NAFLD patients were included, and the comparison of the treatment effect, lipid level, liver function and adipocytokine level between the control group and the observation group showed that the observation group was also able to reduce the intrahepatic fat aggregation, alleviate the hepatic inflammatory response, and reverse the lung fibrosis progression, improve liver function, and have better efficacy in treating NAFLD. Therefore, more extensive and in-depth research should be carried out on the combination of Chinese and Western medicine in the future to provide a better choice for the treatment and prevention of NAFLD.

5. New directions in nursing research

After combing through the academic literature in recent years, it was found that there are relatively few nursing intervention studies for NAFLD. At the same time, specialized intervention and support mechanisms for NAFLD have not been developed in the existing nursing system. In addition, there is a lack of evidence to support specialized nurses targeting only NAFLD patients. Therefore, it is of implementation value to promote comprehensive NAFLD management services led by specialist nurses within hospitals to provide specialized assistance, guidance and support to patients.

5.1 One-stop care clinics

Fancy[19] established a nurse-led weekly one-stop care clinic. The clinic was used to screen patients with advanced fibrosis referred from local primary care. Of the 112 patients, 95 had NAFLD, and assessment showed that approximately 40% of the referred patients were discharged back to their primary care provider, emphasizing the importance of the input of specialty nurses for this patient population and resource. This shows the success of the nursing intervention. NAFLD is a growing problem worldwide and will require more input and monitoring in the coming years. Nurse-led clinics should be implemented and specialty nurses need to play a more prominent role in the management of this disease.

5.2 Establishment of nursing interventions and support systems

Luo Yangqin[20] implemented nursing intervention on 40 cases of college students suffering from nonalcoholic fatty liver disease and observed the effect of their intervention. By implementing the establishment of individualized health records, dietary modification, physical exercise and psychological interventions, providing health tracking and education, and observing the body mass index, alanine aminotransferase, serum total cholesterol, triacylglycerol, and the degree of fatty liver before and after the comprehensive nursing intervention. The results showed that body mass index, alanine aminotransferase, serum total cholesterol, triacylglycerol and fatty liver lesions were significantly improved, so the comprehensive nursing intervention can significantly reduce the body mass index, alanine aminotransferase, serum total cholesterol, triacylglycerol and promote the regression of the disease. In addition to this nurses need to take on a multi-professional role that includes providing lifestyle advice and counseling to assess psychological issues and liaise with other members of the multidisciplinary team to build collaborative relationships for effective management of other diseases such as diabetes and hypertension. There is also a need to be aware of the tests required to diagnose non-alcoholic fatty liver disease, as well as an understanding of when a patient is entering a more advanced stage of liver disease and the monitoring and assessment required for this.

6. Summary and outlook

NAFLD is becoming increasingly common in the spectrum of chronic liver diseases, and if left unattended, the disease can progress to simple steatosis, non-alcoholic steatohepatitis, liver fibrosis, and even hepatocellular carcinoma. The insidious and slow progression of the disease, coupled with the fact that its pathologic mechanism has not yet been clarified, has led to frequent neglect in clinical practice. At present, there is no specific drug treatment for NAFLD, and the potential side effects and safety of drugs need to be further investigated. Clinical studies have shown that a combination of Chinese and Western medicine is more effective in treating NAFLD than Chinese or Western medicine alone. However, there is a lack of research on systematic nursing interventions for NAFLD, and the nursing intervention and support system has not yet been perfected. Future research should focus on the establishment of one-stop nursing clinics and nursing intervention support system.

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