

# *Professor Chang Zhanjie's Experience in the Treatment of Metabolism-Related Fatty Liver Disease by the Method of Elimination and Drainage*

Yiyue Yan<sup>1</sup>, Zhanjie Chang<sup>2, a, \*</sup>

<sup>1</sup>The First Clinical Medical College of Shaanxi University of Traditional Chinese Medicine, Xianyang, Shaanxi, 712046, China

<sup>2</sup>The Affiliated Hospital of Shaanxi University of Traditional Chinese Medicine, Xianyang, Shaanxi, 712000, China

<sup>a</sup>Changzhanjie@163.com

\*Corresponding author

**Keywords:** Metabolism-related steatohepatopathy, Division, Elimination and drainage method, Professor Chang Zhanjie, Famous doctor's experience

**Abstract:** Professor Chang Zhanjie believes that metabolism-related fatty liver disease involves multiple internal organs, including the liver and gallbladder, spleen and stomach, kidney and the three jiao, and the pathological products are phlegm, dampness, turbidity, stasis and heat, and the pathomechanism is the loss of use of the liver and spleen, resulting in the interplay of phlegm and stasis, and the loss of qi regulation, resulting in the blockage of the three jiao. Under the guidance of the theory of division, elimination and drainage, we have formulated our own formulas, namely, Xie Mu Dan, Qing Mu Dan and Zuo Mu Dan, to achieve better clinical efficacy in the treatment of metabolism-related fatty liver disease.

## 1. Introduction

Metabolic associated fatty liver disease (MAFLD), formerly known as nonalcoholic fatty liver disease, is a metabolic stress liver injury caused by excessive accumulation of fat in the liver on the basis of metabolic syndrome. According to the degree of intrahepatic steatosis, inflammation and fibrosis, it can be divided into simple fatty liver, steatohepatitis, and further evolved into fatty liver fibrosis, cirrhosis and even liver cancer. The study found that the metabolic disorder caused by multiple factors, such as central obesity, insulin resistance, genetic inheritance, oxidative stress, and inflammatory status, is the key mechanism of the occurrence and development of the disease<sup>[1]</sup>. At present, comprehensive intervention is emphasized in the clinical prevention and treatment of this disease. On the basis of improving the lifestyle, it is supplemented by drug therapy such as lowering blood sugar, lowering blood lipid and improving insulin resistance<sup>[2]</sup>. Traditional Chinese medicine has certain advantages and characteristics in treating metabolic fatty liver disease. Professor Chang Zhanjie, a famous traditional Chinese medicine in Shaanxi Province, has been engaged in the treatment of liver diseases with the combination of traditional Chinese and western medicine for more than 40 years. He has been diligent in seeking ancient wisdom and studying medical ethics.

Under the guidance of the theory of eliminating phlegm and bleeding, he believes that the pathogenesis is mainly phlegm turbidity, damp heat, and blood stasis. The clinical treatment is to eliminate wood pills, clear wood pills, and rou wood pills. The clinical effect is satisfactory. His academic ideas and clinical experience are summarized as follows.

## 2. The Origin of Dissipation Discharge Method

### 2.1 Connotation of Dissipation Discharge Method

Tracing back to the basic idea of “dividing elimination and discharging”, we should first see it in the Plain Questions · The Great Essay of True Importance: “The dampness is in the interior, the bitter heat is treated, the acid is weak, the bitterness is dry, and the light is used to discharge”. Here, “with bitterness and dryness” at that time refers to the evil of dampness mainly in the middle energizer, and “with dilution” refers to the evil in the lower energizer. This is the core idea of the legislation of “decontamination and drainage”<sup>[3]</sup>. Zhang Zhongjing, a physician in the Han Dynasty, had a case of ruffian syndrome with mixed cold and heat, which was treated with the method of opening up bitterness and reducing bitterness. In the Treatise on Febrile Diseases, it was put forward that: “Those who are full but not painful are ruffians, and those who are not hit by firewood are pinellia heart purging soup”. Prescription medicine is used for eliminating dampness and phlegm, and it can be used in combination with bitter cold to relieve heat. It can be seen that the compatibility structure of its formula has initially had the embryonic form of the method of “dividing, eliminating, draining and discharging”. It can be said that it is the best way to cure the temperature problem, and it has many inspirations for later studies<sup>[4]</sup>. Zhu Danxi of the Yuan Dynasty said, “To remove the dampness and heat in the upper energizer, scutellaria baicalensis is needed to relieve lung fire; to remove the dampness and pain in the middle energizer, Coptis chinensis is used to relieve heart fire; to remove the dampness and pain in the lower energizer, you must wash Fangji, Huangbai, Anemarrhena asphodeloides and Gentiana scabra with wine; to remove the dampness and pain in the lower energizer, there is fire evil in the bladder. “Zhu Danxi was the first doctor to apply the triple energizer theory to the treatment of damp and warm diseases, which had an important impact on the syndrome differentiation of triple energizer in the later period<sup>[5]</sup>. Until the Qing Dynasty, Ye Tianshi's Treatise on Temperate Heat said: “When discussing the qi disease again, it does not transmit blood, but the evil stays in the triple energizer, which is also like the Shaoyang disease in typhoid fever. That is to reconcile the exterior and the interior. This is to eliminate the upward and downward trend, and change with the syndrome, such as apricot, plain, Ling, etc. in recent times, or the bleeding of warm gallbladder soup.” He put forward the academic thought of “dividing up and down, changing with syndrome”, which pioneered the treatment of damp heat disease with the method of dividing up, eliminating and discharging. After successive generations of physicians in clinical play and summary, it is still widely used<sup>[6]</sup>.

In the method of separation, elimination and discharge, “separation” means separation, decomposition and dispersion; “Elimination” means elimination. “Dispelling” has two main meanings in clinical application: One refers to partial elimination, which mainly refers to methods to eliminate diseases and pathogens from different levels and parts of the human body, such as external and internal elimination, up and down elimination, two stool elimination, three energizers elimination, etc; Two fingers divide disease and evil, which mainly refers to the use of different drugs and treatment methods according to the nature of different diseases and evils when different diseases and evils combine to cause diseases. In clinical application, “catharsis” mainly refers to the application of drugs that do not follow the rules, taking their dynamic and unblocked characteristics, so that the pathogenic factors on the one hand have nothing to rely on, the potential is isolated and easy to eliminate, and on the other hand, the path to expel the pathogenic factors is smooth and easy

to reach the outside. “Dissipation” is mainly from the perspective of treatment methodology, while “discharge” is from the perspective of drug administration. The two are embodied in two ways under the same treatment principle, and cannot be understood separately<sup>[7]</sup>.

## 2.2 The Extension and Expansion of Dissipation Discharge Method

In the Jin and Yuan Dynasties, Li Dongyuan, a doctor, put forward in the “Orchid Room Secrets” that “those who are full of energy should be eliminated separately, and those who are full of energy should be discharged into the body. If the spleen and stomach are ill, the qi should be eliminated up and down at the same time.” He treated Zhongman's heat distension with a full score of Xiaowan. In *Jing Yue Quan Shu*, Zhang Jingyue stated that “both ruffians and dampness exist, but it is better to divide them up and down to eliminate their dampness. If there is evidence of internal reality, the common people can slightly dredge them”, and that “alcoholic fever is an invisible thing, and the invisible vitality is injured, so we should use Ge flower to dissolve the soup and eliminate their dampness”. Zhang Zihé also mentioned in his book: “Throat arthralgia disease is probably caused by phlegm and fire. If it is urgent, it is better to spit, and then go back to the next step.<sup>[8]</sup> Later generations have also played a role in the development of “decontamination and drainage”, for example, Wang Mengying explained that it means that “those who have the power of dividing up and down, open almonds, spread magnolia, and lead by tuckahoe, seem to be wet and warm, or they have phlegm, so the gallbladder warming soup can also be used”. Yu Genchu founded *Qinlian Erchen Tang* and *Artemisia Qinqing Dan Tang*, Wu Jutong's establishment of *Sanren Decoction*, *Poria Cocos Peel Soup*, *Almond Talc Soup*, and *Scutellaria Skullcap Talc Soup* are specific prescriptions for the clinical application of *Fenxiao Xiexi*. In particular, *Sanren Decoction*, with almond opening, *Kouren Xuanzhong*, and *Coix Seed* infiltrating, has become a representative prescription for *Fenxiao Xiexi*<sup>[9]</sup>. Until modern times, the major physicians used flexible methods to treat various diseases. Wang Liping and others<sup>[10]</sup> extended the pushing method on the basis of *Zhongjing's* method of opening and descending, starting from the spleen, the principles of opening qi to expel turbidity, expelling heat and dehumidification, and strengthening the spleen to maintain the medium level were flexibly applied to the treatment of spleen and stomach diseases, so as to achieve the goal of opening up bitterness and reducing bitterness, and bringing forth the new through the old. *Evodia rutaecarpa*, *Rhizoma coptidis*, and raw licorice were used to treat stomach pain, acid ingestion, hiccup and other diseases caused by mixed cold and heat, and imbalance of qi. Liu Jingyuan and others<sup>[11]</sup> pointed out that the disorder of access between the exterior and interior and the disorder of up and down movements are like the east-west horizontal and north-south vertical roads at the cross intersection, if one of the channels is blocked, the other channel will also be blocked because of it. Therefore, *Chaihu Wendan Decoction* is good at treating internal injuries and miscellaneous diseases, and has a great therapeutic effect. In a word, the fundamental purpose of “dispelling and discharging” is to give evil a way out. The specific implementation method is to use drugs that can circulate qi and promote blood circulation to smooth the flow of qi, dredge the blood vessels, so as to release the triple energizer, clear the internal and external, and finally make evil a way out<sup>[12]</sup>.

## 3. Etiology and Pathogenesis of MAFLD

### 3.1 Spleen Deficiency and Liver Damage

The spleen and stomach are the biochemical source of water grains. The normal function of spleen in regulating transportation and transformation depends on the role of liver in relieving. The digestion, absorption, transportation and distribution of water grains are inseparable from the

smooth flow of liver qi. The spleen and stomach are the key points for the rise and fall of qi. The spleen and stomach are deficient in qi. If you are depressed in the middle energizer, the qi and blood biochemistry will be blocked. The liver will lose nourishment and the liver and qi will lose harmony. Liver depression can aggravate spleen asthenia, because the liver is in charge of relieving, it can regulate qi and help transport; When liver qi stagnates, the generation of qi and blood decreases, affecting the generation and distribution of fine and micro substances, thus causing metabolic abnormalities; The liver loses its flow, which leads to the disadvantageous gasification of the lung, spleen and kidney, the blockage of the three energizers' channels, and the obstruction of the water delivery, and the generation of phlegm and dampness. The qi and blood circulation will be lost, the fluid will stop and become phlegm, the stagnation of blood circulation will become blood stasis, and the fluid and blood will be mixed, eventually causing the phlegm and blood stasis to be intertwined, and over time, it will become various syndromes<sup>[13]</sup>.

### 3.2 Phlegm and Blood Stasis

It is generally believed that if the water essence and micro substances absorbed by the human body are abnormal in metabolism, they will turn into water dampness and phlegm, which will lead to the endogenous generation of turbid evil, and over time, they will generate blood stasis and heat. Phlegm, dampness, turbidity, blood stasis and heat generated by various reasons will accumulate in the liver, leading to MAFLD. "Phlegm is the gradual increase of blood stasis, and blood stasis is the change of phlegm". Blood stasis can cause phlegm, phlegm can cause blood stasis, and it can detain the body. The internal organs and the external organs reach the muscles, bones, skin and flesh, and flow through the meridians. The disease spreads all over the body with the rise and fall of qi. The course of the disease goes on for a long time, and the healthy qi is weak, and the evil is not strong enough. It changes into various syndromes and affects the whole body. Therefore, it is said that "phlegm and blood stasis are the most important diseases, and the phlegm and blood stasis are clear, and all diseases disappear"<sup>[14]</sup>. Phlegm and blood stasis are intertwined in the body, which condenses the liver, stagnates qi and blood for a long time, causes liver dysfunction, and aggravates the disease, which further develops from simple fatty liver to steatohepatitis, cirrhosis, and even liver cancer.

### 3.3 Evil Obstructs Triple Energizer

The triple energizer gasification regulates the life activities of the human body. The triple energizer gasification function is normal. The upper, middle and lower triple energizer roads are unblocked. The nutrient substances of the metaplasia are continuously transported inside the body. The essence of the five zang organs and six fu organs circulates in the body through the triple energizer gasification, completing the distribution and mutual transformation of qi, blood, essence and fluid, so that the body is in a dynamic balance of yin, yang and mystery. Therefore, the triple energizer gasification is the foundation of maintaining life activities. Physiologically, triple energizer is the source of positive qi. Under pathological conditions, triple energizer is the way of dispersing evil. The triple energizer is the general manager of qi transformation. It takes charge of the functional activities of the five zang organs and six fu organs. Only when the triple energizer has a normal function of qi transformation, can the normal physiological functions of the five zang organs be guaranteed. Only when the qi, blood, and body fluid rise and fall, can the human body be healthy<sup>[15]</sup>. MAFLD based on metabolic syndrome is a chronic systemic disease. Turbid phlegm, damp heat and blood stasis block the triple energizer, causing lasting and extensive damage to the functions of multiple viscera. It is not a single viscera lesion caused by a single factor, but involves the upper, middle and lower triple energizer and multiple viscera lesions.

## 4. Treatment of MAFLD by Dissipation and Discharge

Professor Chang believes that MAFLD, as a multiple pathogenic factor, leads to metabolic disorder concentrated in the pathological manifestations of the liver. In terms of treatment, we should focus on the liver, pay attention to the simultaneous treatment of the liver and spleen, the harmony of qi and blood, and the access to the triple energizer. “The triple energizer is connected, so that the left and right, the inside and outside, and the top and bottom are all connected.” The principle of strengthening the healthy and eliminating the evil is always carried out by adopting the method of eliminating and discharging.

### 4.1 Invigorate Qi and Spleen, Discharge Phlegm and Reduce Fat

Professor Chang attaches importance to the simultaneous treatment of liver and spleen. Clinical prescriptions often use the compatibility of poria cocos, atractylodes macrocephala, dried tangerine peel, rhizoma alismatis, cassia seed and other drugs to relieve phlegm and lipid, and to relieve symptoms and symptoms. Professor Chang believes that atractylodes macrocephala is good at removing dampness and strengthening spleen, and the dosage should be large, generally 20~40g. If the tongue coating is white, greasy, and heavily turbid, it can be identified as phlegm turbid, and the atractylodes macrocephala is easy to atractylodes macrocephala, but because atractylodes macrocephala is warm and dry, it can not be used. It can be stopped after removing the white and greasy tongue coating to avoid damaging yin and blood. If you also feel numb and feel bloated and do not want to eat, you can identify it as dampness in the spleen and stomach. You can add herbs such as agastache, Perrin, fried malt, and Raphanus seeds to help the spleen and transport, and digest and regulate the stomach to remove bloating. Phlegm dampness is obstructed in the middle, the middle energizer is unable to mediate, and the internal organs and qi are blocked, which will inevitably affect the conduction function of the large intestine. Patients with constipation can often be seen in clinical practice. Cassia seed can not only purge evil water, but also moisten the intestines and defecate, with a dosage of 10-15g<sup>[13]</sup>.

### 4.2 Soothing the Liver, Regulating Qi, Promoting Blood Circulation and Removing Blood Stasis

Professor Chang pointed out that phlegm is thick and sticky in nature, and it is also used to transform blood and liquid. Therefore, phlegm is a disease, which belongs to yin. Yin governs coagulation, and coagulation leads to blood stasis. This is the combination of phlegm and blood stasis<sup>[16]</sup>. It is emphasized that the drug selection should not only focus on supplementing liver blood, promoting blood circulation and removing blood stasis, but also should not have the disadvantage of breaking blood and injuring the liver. In terms of qi and blood, it is necessary to replenish qi in order to nourish blood, regulate qi in order to regulate blood, and investigate the deficiency and excess of evil in detail when clinical symptoms occur. Only by doing this can we better play the role of removing blood stasis. Make good use of Angelica, Ligusticum chuanxiong, and Paeonia lactiflora to nourish blood and promote blood circulation, which can be used together with blood stasis removing drugs to remove blood stasis without hurting yin blood. It is very important to emphasize the use of Ligusticum chuanxiong, which is generally 10g~15g. It can not only nourish blood and promote blood circulation, but also exercise qi in blood, enhance the power of removing blood stasis, and promote blood circulation without damaging the body; Blood breaking drugs should be used with caution, and should not be used in large quantities to avoid damaging liver collaterals; The use of Qi activating drugs is particularly critical, which is intended to make Qi cool and blood flowing<sup>[17]</sup>.



### 4.3 Adjust and Smooth the Gas Engine to Reach the Triple Coke

Professor Chang believes that the application of the method of dividing, dispelling, draining and discharging is directly reflected in the regulation of qi, covering the upper, middle and lower triple energizers and multiple zang fu organs. The drugs are mainly used to invigorate the spleen and liver, promote blood circulation and promote qi, especially astragalus, and the drugs such as codonopsis pilosula, atractylodes macrocephala, poria cocos, Jiao Sanxian, and yam are good for invigorating qi and spleen to improve its essence; then use *Achyranthes bidentata*, *Angelica sinensis*, *Ligusticum chuanxiong*, *Salvia miltiorrhiza* and other drugs to promote blood circulation and remove blood stasis, soften the hard and disperse the knot, and use *Magnolia officinalis*, *Radix bupleuri*, *Fructus aurantii*, tangerine peel and other drugs to soothe the liver, broaden the chest and promote qi<sup>[18]</sup>. The legislative principle of the method of separation and elimination is to facilitate the diffusion of the evils of triple energizer according to the situation, eliminate the evils nearby, and make the refractory evils disperse with the drug potential. So it doesn't seem important to get rid of the evil. That is to say, theoretically speaking: no matter external or internal injury, as long as the evil diffuse triple energizer is finally caused, it can be effectively treated with the method of dispelling and discharging<sup>[19]</sup>. To sum up, the treatment of this disease is centered on the treatment of liver and spleen, giving consideration to relieving phlegm, removing blood stasis, and reaching the triple energizer, and using the method of separation, elimination, and discharge to reflect the diagnosis and treatment thinking of combining the strengthening of the right and expelling evil spirits.

### 5. Example of Case Verification

The patient, male, 46 years old, was initially diagnosed on August 10, 2018. Chief complaint: Concealed pain in the right flank for 4 months, aggravated with abdominal distension for 1 month. Current medical history: The patient complained of dull pain in the right flank after greasy food in April, and the patient did not pay attention to it without treatment. One month ago, the above symptoms became worse with abdominal distension, so I came to our hospital for the treatment of integrated traditional Chinese and western medicine. Symptoms: dull pain in the right flank, abdominal distension, nausea, fatigue, fat body, bitter mouth, poor appetite, poor night rest, normal urination, loose and dry stool, dark red tongue, yellow and greasy fur, and smooth pulse. Auxiliary examination: blood pressure 150/100mmHg, five HBV markers and hepatitis C antibody were normal, liver function: ALT 87.16U/L, AST 85.23U/L, TG 5.78mmol/L, fasting blood glucose 6.9 mmol/L, urea nitrogen and creatinine were normal. ECG: sinus rhythm, nonspecific T-wave abnormality of extensive leads. Ultrasound B: fatty liver, cholecystitis. CT: liver/spleen ratio 0.63 (moderate fatty liver). Past history: hypertension for 3 years, hyperlipidemia for 1 year. The family history of hepatitis was denied. Western medicine diagnosis: metabolic fatty liver disease; TCM diagnosis: hypochondriac pain, syndrome type: liver depression and spleen deficiency, phlegm and blood stasis. Treatment: invigorate the spleen and remove phlegm, soothe the liver and remove blood stasis. Prescription: addition and subtraction of Xiaomudan. Specific medication: stir fried *atractylodes macrocephala* and *poria cocos* 30g each, dried tangerine peel 15g each, turmeric and *rhizoma alismatis* 10g each, *bupleurum chinense* 12g, *scutellaria baicalensis* 8g, raw hawthorn 20g. Seven doses were decocted in water, one dose per day. Ask them to eat light and exercise more. Second diagnosis: Bitter mouth and abdominal distension are alleviated compared with before, the dull pain in the right flank rib is alleviated, the appetite is average, the stool is slightly dry, the tongue is dark red, the coating is greasy, and the pulse is string and slippery. Adjustment prescription: stir fried *atractylodes macrocephala* and *poria cocos* 30g each, tangerine peel and *salvia miltiorrhiza* 15g each, *bupleurum chinense* 12g each, turmeric, *chuanxiong*, *corydalis yanhusuo* and *perram* 10g each, *scutellaria baicalensis* 8g, raw hawthorn 20g, stir fried *shenqu* 20g,

14 doses of water decocted, 1 dose per day. Third diagnosis: After taking the above medicine, the patient's bitter mouth and fatigue disappeared, the pain and discomfort in the right flank were alleviated, the patient ate well, the stool was slightly dry, the tongue was red, the coating was white and greasy, and the pulse was string. The patients were still treated for 3 months with the addition and subtraction of the upper part according to the syndrome. The ALT and AST were found to have decreased to varying degrees, and the liver function and blood lipid were basically normal. The CT showed mild fatty liver. The patients were instructed to eat low fat diet, control their weight, take regular reexamination, and follow up if they were unwell.

## 6. Conclusion

MAFLD corresponds to the category of “hepatomania” in traditional Chinese medicine, and its pathogenesis is always liver and spleen dysfunction, phlegm and blood stasis; Qi is out of balance, and evil blocks the triple energizer, Teacher Chang insisted on the principle of strengthening the right and expelling evil spirits, treating the liver and spleen together, harmonizing qi and blood, and reaching the triple energizer, and flexibly applied the method of separating elimination and discharging to clinical practice. “Separating elimination” was mainly based on the location of treatment and the nature of disease and pathogen. “Removing and discharging” was mainly based on the idea of drug selection and characteristics of drug use, that is, separating and eliminating evil spirits, moving and discharging evil spirits. The two should be both different and related, complementary, coordinated, and indivisible<sup>[20]</sup>.

## References

- [1] Gao Xin. *New thoughts on the renaming of nonalcoholic fatty liver disease [J]. Journal of Clinical Hepatobiliary Diseases*, 2020, 36(6):1201-1204.
- [2] Zheng Gang. *Clinical evidence and thinking of drug intervention for metabolic syndrome [J]. Evidence based medicine*, 2005(02):94-98.
- [3] Ma Boyan, Zhang Fuli, Zhang Jifang, et al. *Exploration of the Theory of “Dissipation and Discharge” [J]. TCM information*, 2012, 29(03):1-2.
- [4] Zhao Dan, Shi Xiao, Shi Dan, et al. *The application of the method of dispersing, eliminating and draining in spleen and stomach diseases [J]. Guangming TCM*, 2018, 33(02):168-170.
- [5] Qin Bing, Feng Quansheng. *Preliminary Study on the Treatment of Alcoholic Fatty Liver Disease from the Point of Dissipation and Discharge [J]. Guangming TCM*, 2018, 33(10):1401-1403.
- [6] Zhao Na. *Discussion on the Method of Dispelling and Drainage and Damp heat Disease [J]. Hunan Journal of Traditional Chinese Medicine*, 2011, 27(02):108-109.
- [7] Wang Hongyang, Zhang Fuyi, Yuan Tiantong. *Progress in Modern Clinical Application of “Dispelling Dissipation and Drainage Method” Based on Epidemic Febrile Diseases [J]. Journal of Liaoning University of Traditional Chinese Medicine*, 2021, 23(11):104-110.
- [8] Li Lan, Lu Bo, Gao Lin. *Discussion on the Origin of the Treatment of Damp heat Disease with the Method of Dispelling Dissipation and Removing Discharge Based on the Classical Theory of Traditional Chinese Medicine [J]. Shizhen Traditional Chinese Medicine Traditional Chinese Medicine*, 2018, 29(04):939-941.
- [9] Liu Hongshu, Ding Yundong. *A preliminary study on the theory of the treatment of chronic hepatitis b with the method of dispersing qi and expelling qi [J]. Modern distance education of Chinese medicine*, 2010,8(12):218-219.
- [10] Huang Yan. *The Application of Pushing Method in Spleen and Stomach Diseases [J]. Henan Traditional Chinese Medicine*, 2019, 39(11):1638-1642.
- [11] Zhang Wenfeng. *Liu Jingyuan's Academic Thought and Clinical Experience [J]. Chinese Journal of Traditional Chinese Medicine*, 2019, 34(02):635-638.
- [12] Xu Lijiao. *Study on the Application of Dissipation and Drainage Method in Part of Damp heat Internal Injury and Miscellaneous Diseases [D]. Heilongjiang University of Traditional Chinese Medicine*, 2013.
- [13] Sun Zhiqiang, Li Jingtao, Wei Hailiang, et al. *Professor Chang Zhanjie's Academic Experience in Treating Non alcoholic Fatty Liver Disease from the Mutual Conclusion of Phlegm and Blood Stasis [J]. Journal of liver diseases of integrated traditional and western medicine*, 2021, 31(01):83-84.
- [14] Gong Peiqiang, Chi Xiaoling, Jiang Yuanye. *Experience in the Treatment of Fatty Liver with Liver Dredging and*

- Blood Stasis Removing Therapy [J]. Chinese Journal of Traditional Chinese Medicine, 2019, 37(03):559-562.*
- [15] Han Jingxian. *Re discussion on triple coke and its gasification [J]. Journal of Traditional Chinese Medicine, 2016, 57(23):2061-2063.*
- [16] Liu Yazhu, Xi Qi, Song Fenli, etc. *Professor Chang Zhanjie's Experience in Treating Non alcoholic Fatty Liver with "Spleen s trengthening and P hlegm r eleasing M ethod" [J].Guangxi T raditional C hinese M edicine, 2016, 39(04):55-57.*
- [17] Wang Ke, Li Jingtao, Chang Zhanjie, etc. *Professor Chang Zhanjie's Experience in Treating Liver Cirrhosis from Three Stages of Stasis [J]. Sichuan Traditional Chinese Medicine, 2017, 35(10):1-3.*
- [18] Jia Tingting, Liu Yonggang, Li Jingtao, etc. *Professor Chang Zhanjie's Experience in the Diagnosis and Treatment of Chronic Liver Failure Based on the Theory of Spleen Controlling Transport and Transformation [J]. Journal of liver diseases of integrated traditional and western medicine, 2021, 31(02):178-181.*
- [19] Mo J ing, Z hang J ifang, Z hang F uli, e tc. *R esearch P rogress of D issipation D ischarge M ethod [J]. TCM information, 2012, 29(05):92-94.*
- [20] Li Lan, Lv Bo, Gao Lin. *Discussion on the Origin of the Treatment of Damp heat Disease with the Method of Dispelling Dissipation and Removing Discharge Based on the Classical Theory of Traditional Chinese Medicine [J]. Shizhen Traditional Chinese Medicine Traditional Chinese Medicine, 2018, 29(04):939-941.*