

The Therapeutic Significance of the Theory of "Treating Liver by Nourishing Spleen" in Primary Liver Cancer

Huanhuan Wang¹, Fanrong Liu^{2,*}

¹Shaanxi University of Chinese Medicine, Xianyang 712046, Shaanxi, China

²Yulin Hospital of Traditional Chinese Medicine (Affiliated to Shaanxi University of Chinese Medicine), Yulin 719051, Shaanxi, China

*Correspondence Author

Abstract: *The theory of "Treating liver by nourishing spleen" has been circulated for a long time, and was first seen in the book of difficult classics, such as Zhang Zhongjing on this basis in "Jin Gui Yao Lue," more clear about the "Treating liver by nourishing spleen" theory, this more Chinese medicine treatment of liver disease laid a solid foundation, this article from the liver and, the physiological relationship between the two spleen pathological relationship between the liver and the spleen to analyze the interaction between the relationship [1]. As well as the liver disease, solid spleen theoretical significance, this paper expounds the significance of treating primary liver cancer (PHC) with the theory of excess of liver and spleen as the guideline, and analyzes the etiology, pathogenesis and dialectical classification of PHC according to the experience of modern doctors, to clarify the important role of solid spleen of liver disease in the treatment of primary liver cancer. And through the analysis of cases to prove the liver disease solid spleen, clinical significance.*

Keywords: Treating liver by nourishing spleen, Primary liver cancer, Therapeutic significance.

1. Introduction

Chronic liver disease is defined as a variety of liver diseases with a course of more than half a year, including various hepatitis viruses, ethanol, drugs and poisons, parasites, metabolism and heredity, cholestasis, immune abnormalities, etc. [2]. Without intervention, chronic liver disease can progress to liver cirrhosis and liver cancer, seriously affecting the health and life of patients [3]. According to the 2023 global burden of disease survey, cirrhosis accounts for 1.82% of the total, causing 1.2 million deaths each year. The liver is the sixth most common site of primary cancer in humans and the fourth leading cause of cancer-related death worldwide [4]. And liver cancer can be divided into two types: primary liver cancer and secondary liver cancer. Primary liver cancer refers to cancer that occurs in hepatocytes or intrahepatic bile duct epithelial cells and is secondary to it, hepatocellular carcinoma (HCC) is a malignant tumor that occurs when a cancer from another organ of the body metastasizes to the liver [5]. This article mainly describes the significance of liver and spleen diseases in guiding the treatment of primary liver cancer. Primary liver cancer (PHC) is a cancer of the liver. Early liver damage does not affect other organs [5].

"Difficult classics" cloud: "See the liver disease, then know the liver when the first pass to the spleen, when the first fact of their temper, no order by the liver disease evil", on this basis, Zhang Zhongjing, according to the theoretical analysis of five elements interaction and its corresponding treatment principles, concluded in "Jin Gui, Yao Lue" that "To treat pre-disease at work, to see the disease of the liver, to know that the liver transmits the spleen, the first solid spleen." [6]. It can be seen that liver disease, a long time can be transmitted to the spleen, resulting in liver and spleen disease. According to the thought of treating pre-disease in TCM, the spleen can be used to prevent pre-disease and pre-disease at the same time when liver disease develops [7]. The theory of Treating liver

by nourishing spleen is based on this to guide various liver diseases clinically. Based on this, this article reviews its therapeutic significance in primary liver cancer.

2. "Liver and Spleen" in Traditional Chinese Medicine

2.1 In Terms of Physiological Function

The liver governs the dispersal of qi and regulates the flow of Qi, so that the water and grain are subtly transfused to the heart and lung and injected to the small intestine, and the bile is produced by the liver and stored in the bile, and is involved in the digestion of food in the small intestine, so that the fine substances can be absorbed, and the liver can raise the spleen and stomach, clear and lower the turbidity, the spleen is the source of Qi and blood biochemistry [8]. The liver is the main source of storing blood, and the spleen is the vital source of Qi and blood, so the liver can store blood normally, and the liver can use Yang while the body is Yin, sufficient qi and blood, so that the liver to moisten the liver to reach the state, conducive to the liver to release the function of the play, and to protect other human physiology, function normal play. The two physiological functions complement each other and make the body run normally [6].

2.2 In Pathological Condition

Damage to liver function, including external factors such as wind, cold, dryness, fire, dampness and heat, as well as mixed feelings and desires of the human body in the liver, or food, hunger, satiety, and general weakness, can lead to the loss of liver physiological function, the imbalance of Qi and blood, yin and yang in liver leads to a series of pathological changes [9]. If the stagnation of liver-qi results from the obstruction of liver-qi, the abnormal regulation of liver-body, the failure to regulate the triple-jiao-qi, and the failure to regulate the

triple-jiao-qi leads to the abnormality of the function of the spleen and the stomach in ascending, clearing and descending turbidity, and the function of the spleen in promoting qi and blood flow is not healthy, and the abnormality of the biochemical function of Qi and blood is caused by the obstruction of the liver-qi and the obstruction of the earth, body fluid infusion and distribution dysfunction, liver and spleen disease [10]. Li Dongyuan in the "Spleen and stomach" mentioned: "Internal injury of the spleen and stomach, all diseases from health," to the effect that the spleen and stomach is the cause of injury, physiological dysfunction, if the spleen and stomach health transport, abnormal, a fine valley can not moisten the whole body, the accumulation of water in the middle jiao leads to dampness, and dampness and stagnation over a long period of time leads to heat, which is an internal evil, depress the liver and gallbladder, lead to the obstruction of the liver and gallbladder, and then cause various liver diseases, the biochemical deficiency of qi and blood, and the biochemical deficiency of liver blood, respectively, deficiency of liver blood and failure of the liver to moisten and nourish lead to hyperactivity of liver-yang [11]. From the above, the liver and spleen affect each other, the role, if there is a pathological change, will also damage each other, for the Zang-fu there is no such thing as an isolated body. Food is taken from the mouth through the esophagus into the stomach, and the spleen and stomach are each other's internal surface [12]. The spleen is transported and absorbed by the stomach and the stomach, and the ripe water and grains are more delicate than the organs and tissues of the whole body, such as the skin, to nourish the whole body, is an important factor in the normal development of human organ function, if the spleen and stomach function, can be damaged, can not normally moisten and nourish the whole body, so to work properly, we have to protect the spleen and stomach [13].

3. The Significance of Solid Spleen in Liver Disease

The liver disease refers to the liver kind of disease, is mainly by the liver function disorder causes each kind of disease. Liver diseases can be divided into deficiency and excess, and excess syndrome includes stagnation of liver-qi, inflammation of liver-fire, internal movement of liver-wind, cold coagulation of liver vessels, etc [14]. Deficiency syndrome includes deficiency of liver-yin, and loss of nourishment of liver vessels, etc. It can also affect other organs over time, many appear liver disease transmission spleen, liver and spleen disease [15]. Such as liver, stagnation of Qi, wood by soil deficiency, liver-qi invasion of the spleen, spleen and stomach up and down accept decomposed function is damaged, water and grain fine transport, obstacles, appear liver depression by the spleen. If the deficiency of spleen-qi to transport water, resulting in water stagnation in the jiao, damp days, long-lasting heat will appear liver and gallbladder damp-heat syndrome. If the spleen is not healthy transport, the spleen does not control blood, insufficient source of Qi and blood, it will appear, liver blood deficiency, blood for Yin, there will be insufficient liver-yin, liver-wood loss and spleen-earth moistening nourishing and liver-collaterals syndrome [17]. Therefore, the clinical liver disease will often appear liver depression spleen syndrome, liver and gallbladder dampness-heat syndrome, liver meridian loss of nourishment syndrome, such as dyspepsia, nausea and

vomiting, anorexia oil and so on [18]. The treatment of deficiency and excess syndrome should be divided into three types: soothing the liver, clearing the liver, purging the liver, nourishing the liver and softening the liver, pay attention to emphasize in the treatment of liver disease at the same time, taking into account the function of the spleen and stomach, correct regulation, spleen and stomach, to benefit the liver, better treatment of liver disease [19].

Zhao Qinhuai et al mentioned in the article "The theory of liver disease and excess spleen" that the excess spleen is transmitted by the liver and the excess spleen is replenished [12]. In the fifth phase, the liver belongs to the wood and spleen belongs to the earth, the liver is the wood and the spleen is the earth, if the liver is vigorous, it will take the Earth of the spleen, causing deficiency of the spleen qi, imbalance of the spleen physiological function, dereliction of the function of ascending the clear and descending the turbidity, and the chest is filled with bitterness, diarrhea and abdominal pain, poor appetite, nausea and other symptoms [20]. That is, spleen deficiency due to transmission of liver-excess, so should be solid spleen to treat liver disease and liver and spleen disease, such as using the use of sweet drugs to replenish spleen qi, warming spleen yang, nourishing spleen Yin, nourishing spleen blood. The spleen is rich in Qi and blood and is not easily disturbed by pathogenic Qi in the four seasons. The normal human body is full of healthy qi and is not affected by exogenous pathogenic qi. The patient recovers and the prognosis is good. Liver deficiency transmits spleen, solid spleen that adjust the spleen [21]. The liver qi is weak, the spleen is the son of the liver, the soil in the spleen does not reach the liver wood, dredges the Qi machine, and there is the stagnation of the Qi machine in the middle coke, the function of the spleen and the stomach is abnormal, the movement and transformation of water and grain, the delicate weakness, causes the food to accumulate in the intestines and stomach, appear belch hiccup, abdominal distention, anorexia oil and other symptoms. That is, liver deficiency transmits spleen leading to spleen stagnation, so we should adjust the spleen, use the method of clearing away spleen heat, invigorating spleen and removing dampness, so that the spleen qi, normal function and eliminate negative symptoms. At the same time, it should also be combined with liver-tonifying and liver-softening drug treatment, liver and spleen with treatment, the two complementary, better efficacy [22].

4. The Therapeutic Significance of Solid Spleen of Liver Disease in Primary Liver Cancer

"Treating liver by nourishing spleen" put forward: Liver accumulation, named fat, under the left side, such as cup, head and feet [23]. Long-term healing, it makes people cough, malaria, year after year. It is concluded that liver accumulation is the disease name of liver cancer in TCM and primary and secondary liver cancer is the disease name of Western medicine. Primary liver cancer is one of the common malignant tumors in our country, according to its pathological characteristics, it can also be classified into the categories of "Hypochondriac pain", "Bulge", "Accumulation" and "Mass". Traditional Chinese medicine (TCM) believes that primary liver cancer (PHC) is mainly due to deficiency of vital energy (qi) and exuberant evil qi, and the deficiency of liver and spleen, depletion of vital energy, subsequent injury to other

zang-fu organs, resulting in a series of complications and sequelae, leading to death [24]. The causes of the disease are internal and external causes, the external causes are mainly the invasion of six evil spirits and the evil of plague, and the internal causes are mainly emotional paralysis, injury, tiredness of diet, weakness of the body, secondary to other diseases and senility. External causes mostly refer to various carcinogens existing in nature or modern times due to industrial pollution, radiation and some occupational diseases and smoking. Liver regulating qi machine, if people are depressed, emotional paralysis, long-term can cause the body liver qi, block, Qi stagnation phlegm coagulation, and then appear liver cancer. If the usual diet is not moderate, eat fat, sweet and greasy, alcoholism, long-term toxic accumulation in the liver, resulting in liver damage, physiological dysfunction, a series of pathological changes leading to the liver, resulting in cancer. If there is an old disease in the body, then liver cancer is secondary to other diseases, mostly for the liver itself pathological changes, prolonged, liver tissue more and more damage and then lead to primary liver cancer [25]. "Hepatitis-cirrhosis-hepatocellular carcinoma" is the trilogy of liver disease progression, 80%~90% of HCC in our country occurs on the basis of fibrosis and cirrhosis [18,19]. Old Age and infirmity are also an important influencing factor of primary liver cancer. As the human body grows older, the tissues and organs of the body tend to mature to a process of senility again, as the Huangdi Neijing grows older, the body's vital energy becomes weak and unable to take care of the viscera, pathological factors in the body, the spleen and kidney for the nature, spleen and kidney deficiency, then the human body other organs are also vulnerable to damage, such as liver disease transmitted to the spleen, spleen disease transmitted to the liver, liver and spleen disease, liver and spleen disease, and so on, later can also be caused by cancer. Such as jaundice is also a primary liver, one of the symptoms of cancer, "Synopsis of the Golden Chamber of jaundice disease," mentioned in the Huang family obtained from the wet [20]. Therefore, it can be concluded that the spleen and stomach are injured by improper diet, the physiological function is maladjusted, and the water and dampness can not be transported, which leads to water and dampness stagnation in middle jiao, and then water and dampness can restrain heat, and if the patient's body is weak, it can also turn into cold and dampness, which affects the liver and gallbladder to release qi, the bile does not follow the normal to, infiltrates the blood cent, overflows the skin, infuses the bladder, but the body, the eye, the urine all yellow [26]. This is the spleen disease affects the liver and gallbladder, liver disease, so treatment of spleen can also prevent liver disease, to achieve the principle of preventive treatment before disease, can also be treated with liver and spleen, so that the condition improved [31].

5. Modern Physician's Point of View

Professor Chang Zhanjie concluded from his long-term clinical practice that the etiology and pathogenesis of liver cancer are mostly due to deficiency in origin and excess in superficiality in superficiality in superficiality, blood stasis and cancer toxin mixed with each other [24]. It is believed that the treatment of liver cancer should be based on the treatment of the spleen, with the principle of benefiting the spleen and nourishing the liver, the spleen is exuberant and the blood gas is sufficient to moisten and nourish the liver wood, in order to

benefit the liver body to protect the liver Yin. Professor Chang Zhanjie has divided the treatment of liver cancer into four kinds, which should be treated according to the principle of benefiting the liver and tonifying the spleen, the deficiency and excess of the specimen, the stagnation of qi and dampness, and the blood stasis, in tonifying the kidney and Qi, clearing away heat and toxic material, promoting blood circulation and removing blood stasis, etc. Professor Li Peiwen's clinical treatment of liver cancer is divided into four types, namely, liver depression spleen deficiency type, liver and gallbladder damp-heat type, blood stasis, block type, liver and kidney yin deficiency type. It is emphasized that syndrome differentiation should be combined with disease differentiation, and cancer is different from other diseases in treatment [25]. Professor Shao Mengyang proposed that liver cancer could be divided into four types: stagnation of liver-qi, stagnation of qi and blood stasis, accumulation of dampness-heat and toxin, deficiency of liver-yin [26]. The etiological factors of the above syndrome types are qi stagnation, blood stasis, dampness obstruction and yin deficiency, and they are easy to change with the syndrome [28]. Stagnation of liver-qi, Qi and blood flow is not smooth or spleen deficiency leads to stagnation of blood in the blood due to biochemical qi and blood; Heat and poison, liver and gallbladder sparse, discharge is not free; spleen-deficiency dampness stagnation qi and blood without the source, can not moisten and nourish liver wood, resulting in liver-blood yin deficiency [27]. From the above analysis, it can be concluded that liver cancer is closely related to spleen deficiency, and most of them are transmitted by liver disease to spleen, and then to liver after spleen disease, and they damage each other. Therefore, liver and spleen should be treated together, and the treatment should be emphasized according to the different symptoms and signs [29,30]. But its main rule of treatment is to determine the general direction under the guidance of liver disease and spleen theory [31]. Secondly, it also embodies the idea of Chinese medicine treatment of pre-disease, pre-disease prevention, both disease prevention, liver disease solid spleen theory for the modern treatment of liver disease is of great significance [32,33].

6. Conclusion

The liver is in charge of storing blood, the spleen is in charge of blood. Liver-storing blood to protect liver-yin restrict liver-yang, so that the two restrict balance. The spleen is the source of Qi and blood, can make the blood flow in the vessel but not overflow, can moisten and nourish the liver body, the liver dredge and regulate the function smoothly, the liver dredge and dredge and regulate, the spleen is healthy and healthy. Therefore, the treatment of primary liver cancer should not be limited to the liver, but should be based on the theory of excess of liver and spleen, the physiological function of the liver recovered gradually, which delayed the spread of liver cancer cells. And the spleen is the foundation of the acquired nature, the movement of water and grain is fine to the whole body, the spleen is good for the movement, making the body strong and not easy to be disturbed by evil, and if the liver cancer patient focuses on the treatment of the spleen to regulate the spleen and stomach, the positive qi is easy to recover, the liver qi is easy to recover, the patient's condition improved. Therefore, the theory of liver disease and spleen is the guiding theory for the treatment of liver disease,

and it has more practical significance for the treatment of primary liver cancer.

References

- [1] Xiang Yingge, Zhang Lihua. Zhang Wu treated chronic liver disease by the method of consolidating spleen [J]. Inner Mongolia Journal of Traditional Chinese Medicine, 2014, 33(32): 95-96
- [2] XU Lieming. Unscrambling of Guideline on the Diagnosis and Treatment of Hepatic Fibrosis With Integrated Chinese and Western Medicine (2019 Edition) [J]. Shanghai Journal of Traditional Chinese Medicine, 2020, 54(3): 29-3152.
- [3] Ginès, P., Krag, A., Abraldes, J. et al. Liver cirrhosis [J]. Lancet (London, England), 398(10308), 1359–1376.
- [4] Moon, A. M., Singal, A. G., & Tapper, E. B. Contemporary Epidemiology of Chronic Liver Disease and Cirrhosis [J]. Clinical Gastroenterology and Hepatology: The Official Clinical Practice Journal of the American Gastroenterological Association, 18(12), 2650–2666.
- [5] Liu Wenjuan, Shi Zhaoming, Huang Lianhe. Clinical research of the Jianpi Shugan decoction with Saxagliptin on type 2 diabetes mellitus with non-alcoholic fatty liver disease [J]. Clinical Journal Of Chinese Medicine, 2023, 15(2): 69-72
- [6] Jiang shiyi, Lu dingbo. Application of the theory of "Treating liver by nourishing spleen" in the treatment of fatty liver [J]. Journal of Medical Information, 2020, 33(03): 154-155.
- [7] Li Lili. Theoretical and clinical study on the treatment of chronic cholecystitis with excess heat of liver and gallbladder by modified Da Chai Hu Decoction [D]. Nanjing University of Chinese Medicine, 2010.
- [8] Gong Yanchun, Chen Xia. To discuss the prevention and health preserving of liver disease from the theory of TCM [J]. Hebei Journal of Traditional Chinese Medicine, 2011, 33(08): 1167-1168.
- [9] Ha Xiaoxian. Discussion on syndrome differentiation of traditional Chinese medicine (XII)—syndrome differentiation of zang-fu organs(IV) [J]. Journal for Beneficial Readines Drug Informations & Medical Advices, 2011(01): 40-42.
- [10] Peng Bo. Clinical characteristics of tumor patients with jaundice and its influence on survival period [D]. Liaoning University of Traditional Chinese Medicine, 2011.
- [11] Chen Lei, Yang Sihua. "See the liver disease, know the liver transmits the spleen, when the first solid spleen" in the treatment of liver disease application [J]. GUANGMING JOURNAL OF CHINESE MEDICINE, 2011, 26(03): 468-469.
- [12] Zhao Qinhui, Wang Wenguang, Chao Liqin, et al. Discussion on Treating Liver by Nourishing Spleen [J]. Liaoning Journal of Traditional Chinese Medicine, 2014, 41(08): 1617-1618.
- [13] Zhou Miaomiao, Feng Xueyan, Wei Sheng, et al. On "Earth achieves wood" [J]. Chinese Journal of Traditional Chinese Medicine, 2021, 36(12): 7073-7076.
- [14] Xu Jiang, Ding Ying, Zou Hong, et al. The construction and application of the cluster nursing program of abdominal distention in patients with liver cancer after operation [J]. International Journal of Nursing, 2022, 41(04): 713-716.
- [15] Lin Huizhen. Clinical epidemiological study on TCM syndrome types of middle and late stage of primary liver cancer [D]. Nanjing University of Chinese Medicine, 2011.
- [16] Chen Weixia, Qin Shumin, Xing Lijun. Professor Xing Lijun's clinical experience in the treatment of primary liver cancer [J]. GUANGMING JOURNAL OF CHINESE MEDICINE, 29(12): 2515-2516.
- [17] Wang Jun, Li Xiaodong, Yang Fan, Wu Huikun, et al. Discussion on clinical terminology of liver disease in traditional Chinese medicine and thinking of standardized research [J]. Chinese Journal of Integrated Traditional and Western Medicine on Liver Diseases, 23(03)2013: 178-179.
- [18] Li Yuanyuan, Zhang Zheng, Shi Jianfei, Jin Lei, Wang Lifeng, Xu Dongping, Wang Fu-Sheng. Risk factors for naturally-occurring early-onset hepatocellular carcinoma in patients with HBV-associated liver cirrhosis in China [J]. International Journal of clinical and experimental Medicine, 2015, 8(1).
- [19] Kew Michael C. The role of cirrhosis in the etiology of hepatocellular carcinoma [J]. Journal of gastrointestinal cancer, 2014, 45(1).
- [20] Huang Qian, Li Jingtao, Zhang Haibo et al. Li Jingtao's experience in diagnosis and treatment of precancerous lesions of liver cancer [J]. Chinese Journal of Integrated Traditional and Western Medicine on Liver Diseases, 2020,30(03): 246-248.
- [21] Xiong Lu. Anti-cancer Huang Di Nei Jing [J]. Population and health, 2020(02): 89-94.
- [22] Luo Yinxing, Cai Xiaoping. Cai Xiao-ping's Experience of Treating Primary Carcinoma of Liver [J]. Henan Traditional Chinese Medicine, 2021,41(02): 211-215.
- [23] Chen Yang, Xu Liming. The relationship between the differentiation and treatment of liver diseases and Qi of spleen and stomach in treatise on febrile diseases [J]. Zhejiang Journal of Traditional Chinese Medicine, 2007(01): 19-21.
- [24] Gao Chanchan, Li Jingtao, Liu Yonggang, et al. Professor Chang Zhanjie's experience in diagnosis and treatment of liver cancer [J]. Chinese Journal of Integrated Traditional and Western Medicine on Liver Diseases, 2021,31(03): 278-280.
- [25] Li Yuan. Li Peiwen's experience in the treatment of primary liver cancer [J]. Journal of Traditional Chinese Medicine, 2009,50(07): 594-595.
- [26] Shao Jing, Zhang Huamin. Collation and research of academic experience of syndrome differentiation and treatment for liver cancer by Shao Mengyang old doctor of traditional Chinese medicine [J]. Chinese Community Doctors, 2017,33(25): 99-99101.
- [27] Li Wenjin. Clinical observation on Ligan kangai mixture in treating 24 cases of advanced liver cancer [D]. Hubei University of Chinese Medicine, 2009.
- [28] Li Xiaoling. A brief talk on the role of the theory of "Treating liver-excess and spleen-excess" in nonalcoholic fatty liver disease [J]. Chinese Journal of Integrated Traditional and Western Medicine on Liver Diseases, 29(01)2019: 63-64.

- [29] Yan Xiaoyan. A brief review of ten lectures on medication for liver diseases [J]. Shandong Journal of Traditional Chinese Medicine, 1999(10): 480.
- [30] Chen Baolin. Application of the principle of preventive treatment in liver diseases [J]. Chinese Journal of Traditional Medical Science and Technology, 2011,18(01): 5052.
- [31] Huang Yi, Liu Huabao. New Concept of Liver-spleen in One System [J]. Journal of Emergency in Traditional Chinese Medicine, 22(04)2013: 531-533.
- [32] Wang Hongwei, Song Chunlian. Discussion on "Spleen-filling" of liver disease [J]. Lishizhen Medicine and Materia Medica Research, 2006(08): 1567.
- [33] Han Mengling, Cheng Liangbin. A brief talk on the significance of solid spleen of liver disease in the clinical treatment of distention disease [J]. Asia-Pacific Traditional Medicine, 2018, 14(04): 111-112.