

CHINESE MEDICINE

Qing Cai Zhang, MD (China), LAc

SECTION

2

MODERN CHINESE MEDICINE THERAPEUTICS FOR HEPATITIS C

Introduction

One-third of the world's viral hepatitis carriers reside in China: over 150 million viral hepatitis patients. More than 30 million people in China are infected with the *hepatitis C virus (HCV)*.¹ Thus, doctors in China have a great deal of experience treating hepatitis with Chinese medicine.

For the most part, China is still a developing country. Expensive drugs such as *interferon* and *ribavirin* are not readily available, nor are they affordable. In addition, the success rate of these drugs is not satisfactory and the side effects can be severe. This has prompted most Chinese hepatitis C patients to use traditional Chinese medicine (TCM), or integrated Chinese and western medicine known as modern Chinese medicine (MCM).

TCM serves more than one billion people in China and Southeast Asia. There are more than one million TCM practitioners in China alone. Five years ago, the Chinese government conducted a national survey on Chinese medicinal substances and found that 11,146 species of plants, 1,581 species of animals, and 80 minerals have been used as TCM remedies.² One-fourth of the world's population uses TCM, the second largest medical system in the world today. In Japan, there are more than 200,000 healthcare providers prescribing Chinese herbal medicines for their patients. TCM is used to treat almost every disease identified by western medicine. TCM is used in Europe, Canada, and the United States, especially in the western, eastern, and northern parts of the U.S.

As discussed in *Chapter 11.1, Traditional Chinese Medicine and Hepatitis C*, TCM is a very old and established healing system based on the restoration of the body's harmony and balance. TCM focuses on maintaining health rather than managing disease. TCM is an empirical medicine, which was mainly developed through *clinical* observation.

During the past five decades, there has been a new development in TCM. Practitioners have begun integrating TCM and western medicine. This combination of TCM and western medicine has created a new version of integrated medicine, modern Chinese medicine. The marriage of TCM and western medicine has brought great benefits to patients. Since the late 1950's, a modernization movement brought TCM into every medical school in China. TCM is taught along with western medicine. The majority of Chinese healthcare providers include both TCM and western medicine in their practices. For most clinical conditions, these two medical approaches are used together and the results are usually better than when either approach was used alone.³ As part of this movement, many western healthcare providers have devoted large amounts of time and energy to the scientific study of TCM.

This section discusses the general principles of MCM treatments for hepatitis C, and also uses the *protocols* developed in Zhang's Clinic in New York City as an example of modern Chinese medicine. It is important to note that, because of differences in education and training, every qualified practitioner develops his/her own way of practicing MCM. This is only one example of how MCM can be applied to the treatment of people with *chronic hepatitis C*. Anyone considering MCM should compare different practitioners' approaches and make an educated decision about whom they should see for treatment.

Modern Chinese Medical Therapeutics for Liver Diseases

Modern Chinese Medical Therapeutics for Liver Diseases (MCMTLD) is a new branch of Chinese medicine developed from *integrative medicine* studies on liver diseases. It is the application of Chinese medicine to treat liver diseases such as viral hepatitis, nonalcoholic *steatohepatitis* (NASH), *jaundice*, *cirrhosis*, and *hepatocellular carcinoma* as defined by western medicine.

After a half century of practice and data accumulation, MCMTLD has succeeded in improving the clinical outcomes of liver diseases, especially in viral hepatitis C and B. Many effective herbal treatment protocols for liver diseases have been developed and put into practice. MCMTLD is the main *modality* for treating viral hepatitis in China today.⁴

In dealing with *chronic hepatitis C*, MCM uses western medical knowledge of how the disease originated, how the disease causes harm, and how to diagnose and monitor the disease. This knowledge is combined with TCM diagnostic tools and Zheng *symptom* pattern differentiation to individualize each patient's health status diagnosis and treatments accordingly. In MCM, herb use is based on both TCM principles and plant *pharmacology*. We now know the active ingredients of the herbs and their actions in the body. We have learned more about possible *toxicities* and side effects, proper doses, and treatment courses.

The main MCM treatments for hepatitis C are focused in two areas: controlling liver *inflammation* and *antifibrosis*.⁵ The pathology of hepatitis C is similar to that of chronic *hepatitis B*, so many MCM treatment methods are the outgrowth of previously developed hepatitis B protocols.

Chinese medicine's approach to chronic viral infections is called *fu zheng qu xie*. The translation of this phrase is, "dispelling evil (the virus) by supporting righteous qi (normal function of the body)." The *immune system* is a major part of the righteous qi (pronounced chee). Therefore, supporting the immune system is an important part of Chinese medical treatment for hepatitis C. There are many Chinese therapies to help regulate and support the immune system.

Chinese medicine asserts that the body itself is the major healing force. Medications and procedures can help the body heal, but they cannot replace the healing function of the body. In treating chronic hepatitis C, Chinese medicine focuses on normalizing liver functions and restoring overall health to strengthen the body's immune functions. As the body becomes stronger, the disease itself can be controlled and the body can return to balance.

During the course of chronic *HCV* infection, many pathological changes occur in the body. Some of these changes are inadequate immune reactions, liver inflammation, *fibrosis*, and *portal hypertension*. All of these changes have significant effects on disease *prognosis*. Therefore, MCM treatment is a multiple target regulatory strategy that attempts to cover the full spectrum of the *pathogenesis*.

Multiple Target Strategy: Eight Goals of MCM Treatment for Hepatitis C

1. Reduce HCV *viral load* and/or suppress viral *replication*
2. Heal liver inflammation and restore liver function to halt disease progression (anti-inflammation)
3. Regulate immune functions
4. Improve *microcirculation* (blood flow to organs and tissues) and lower portal vein hypertension
5. Promote liver cell regeneration to restore liver structure
6. Suppress *fibroblastic* activity to reduce scarring (antifibrosis)
7. Facilitating *bile* flow to release bile retention
8. Treat hepatitis C peripheral symptoms and complications to improve overall health

MCM Antiviral Treatments

Since hepatitis C is an infectious disease, the eradication of the virus is an important goal of treatment. MCM herbal remedies do not eliminate the hepatitis C virus. If the patient is seeking total eradication of HCV, then *interferon-based therapy* is advised. MCM can be a complementary treatment to mitigate HCV symptoms. It is also used to alleviate the side effects of *interferon-based treatment*.

A healthier body is better able to control the virus and prevent it from causing further harm. Suppressing HCV is achieved by strengthening the immune system and using *antiviral* herbal remedies. Herbal treatments may be able to reduce HCV viral load, but cannot eliminate the virus. These include oleuropain (the purified extracts of the olive leaf) and glycyrrhizin (the active ingredient of *Glycyrrhiza uralensis* Fisch).

Glycyrrhizin has been found to have anti-*HBV*, anti-*HIV*, and anti-*VSV* (vesiculovirus) effects in the laboratory.⁶⁻⁸ In our clinic, we use Olivessence Capsule® and Glycyrrhizin Capsule® for antiviral treatment of HCV.

MCM Anti-Inflammation Treatment

Liver inflammation causes fibrosis, which may lead to *cirrhosis*. In order to stop the progression of fibrosis, liver inflammation must be controlled. MCM has developed many herbal remedies for controlling liver inflammation, such as schizandrin B and C (active ingredients of *Schizandrae Fructus*), glycyrrhizin, oleanolic acid (active ingredient of *Ligustrum lucidum* Ait), silymarin (active ingredient of *Silybum marianum*), oxymatrine (active ingredient of *Sophorae Subprostratae Radix*), and Sedin (active ingredient of *Sedi sarmentosi herba*). These herbal substances can lower alanine aminotransferase (*ALT*) and *aspartate aminotransferase (AST)* levels, protect the liver cell membrane, and reduce inflammatory cell infiltration and liver cell *necrosis*.

The active ingredients of schizandra and schisandrin B and C have been tested in *clinical trials* in China. Studies involving 4,558 patients showed schisandrin B and C reduced and/or normalized ALT levels in 75% of the cases within 2 to 3 months. Of 153 patients treated with oleanolic acid, 110 (70%) experienced normalization of their ALT within 50 days.⁹ The therapeutic effects of oleanolic acid was also studied in a multicenter clinical trial and found to have an efficacy rate of 69.8%.¹⁰ Glycyrrhizin has been used to treat chronic viral hepatitis in China and Japan. Studies have shown that it was effective in normalizing ALT in 64% of patients in Japan, and 84.5% of patients in China.¹¹ The phytopharmacology and clinical studies of these herbal active ingredients were done on animal models, in liver cell cultures, and in multi-center clinical trials of patients.¹²

ALT is an important marker of liver inflammation and liver cell necrosis. After treatment, if three consecutive ALT tests (done 2 to 3 months apart) are normal, liver inflammation is considered as being well controlled. In a clinical observation done in our office in 2000, we found that 77% of our patients had their ALT level normalized and 93% improved their ALT level with our anti-inflammatory treatment.¹³

The liver is a complex organ and has hundreds of functions. Aside from laboratory markers that only test about a dozen parameters, the patient's general feeling of well-being and overall health status carries significant value in evaluating the results of liver inflammation control and liver function restoration. Patient reports of reduced *fatigue*, decreased liver area discomfort, improved appetite and digestion, improved bowel movements, fading of liver palm and spider moles, normalization of urine and stool color, and the *clearance* of jaundice are considered in MCM as indicators of controlled liver inflammation and liver function restoration.

MCM Antifibrosis Treatments

Fibrosis is the process that results in the majority of the liver damage in chronic hepatitis C. Serious complications of liver diseases are due to extensive fibrosis. Therefore, antifibrosis treatment has been an important focus of research on treatment for chronic liver disease. If fibrosis can be arrested or reversed, the prognosis for those with chronic hepatitis C can be greatly improved. MCM treatment goals to improve *microcirculation*, lower portal vein hypertension, promote liver cell regeneration to restore the liver structure, and suppress fibrosis are discussed in this section.

Liver fibrosis is the net result of the imbalance between synthesis and degradation of the *extracellular* matrix (ECM). Fibrosis progresses when ECM synthesis is active and its rate of decomposition is decreased.

Fibrosis can be halted or reversed if its driver, liver inflammation, is controlled. Chinese studies have found that with antifibrosis herbal treatment, it is possible to enhance the activity of collagenase. Collagenase is an *enzyme* that breaks down *collagen*, a component of scar tissue. Enhanced collagenase activity promotes the breakdown of ECM and may arrest fibrosis progression.

For many years, MCM antifibrosis studies have shown that fibrosis is reversible.^{14,15} In China, antifibrosis with Chinese medicine is an intensive field of research in the treatment of chronic viral hepatitis. From 1998 to 2001, more than 2,000 articles on liver fibrosis have been published in China and over half of these articles discuss antifibrosis treatments. In our clinic, of the seven patients that underwent before and after herbal treatment biopsies six found their fibrosis *stage* decreased.

Antifibrosis Treatments Based on TCM Theories

In China, most antifibrosis studies have been based on chronic hepatitis B or schistosomiasis (a parasitic worm infection). In TCM literature, fibrosis is discussed under the topics of Yu Xue (blood stasis) and Zheng Jia (abdominal masses), which are the main *pathogeneses* of liver fibrosis according to TCM theories. Typically, patients have the following symptoms and *signs*: liver palms (redness of the palms of the hands), spider moles, cold hands and feet, purplish tongue, dark lips, a dark ring around each eye, and/or an enlarged liver and spleen.¹⁶

The main treatment principle underlying antifibrosis treatments is based on Huo Xue Hua Yu (promoting blood circulation by removing blood stasis) and Ruan Jian San Jie (softening and resolving hard masses). The interpretation of the treatment principle is to remove hard masses by promoting the blood circulation. Promoting circulation involves:

- improving the liquidity of the blood
- reducing blood viscosity
- suppressing the clustering of *red blood cells* and *platelets*
- promoting the work of *white blood cells* in removing circulatory immune complexes
- promote microcirculation to increase blood delivery to the tissues

TCM herbal formulas used to treat liver fibrosis were evaluated from TCM treatments for other fibrotic diseases. The traditional formulas used for this therapy are:

- Xue Fu Zhu Yu Tang (*Decoction for Removing Blood Stasis in the Chest*)¹⁷
- Ge Xie Zhu Yu Tang (*Decoction for Removing Blood Stasis Below the Diaphragm*)¹⁸
- Shao Fu Zhu Yu Tang (*Decoction for Removing Blood Stasis in the Lower Abdomen*)¹⁹

In our clinic's protocols, we use Circulation P Capsule® as one of the major antifibrosis remedies. Circulation P Capsule® is a modification of above mentioned traditional formulas Xue Fu Zhu Yu Tang and Ge Xie Zhu Yu Tang. Chinese studies have found that after taking Xue Fu Zhu Yu Tang formula for three months, the levels of fibrosis markers (such as hyaluronic acid, laminin, collagen IV, and precollagen type III) are significantly reduced.²⁰ Our Circulation P Capsule® formula is composed of a combination of the two formulas mentioned above with the addition of more potent active ingredients, such as notoginsenoside, chuanxingzine, tanshinone, and ferulic acid. Circulation P Capsule® is the main formula we use for antifibrosis treatment by the "blood activating and stasis expelling" mechanism.

MCM Theories of Antifibrosis Treatments

The studies on MCM antifibrosis treatments were focused on suppressing the activities of *hepatic stellate cells* (HSC) and *cytokines*, reducing the synthesis of ECM, and restoring the equilibrium of the production and degradation of ECM.²¹ Because fibrosis is complex process, antifibrosis therapy is a multipronged treatment.

PREVENT LIVER CELL INJURY, ANTI-OXIDATION, AND CONTROL INFLAMMATION

Liver cell injury sets off the liver fibrosis process. Treating the primary liver disease, such as chronic hepatitis C, to reduce the inflammation, eliminate *free radicals*, and prevent liver cell damage is the most important antifibrosis therapy.²²

SUPPRESS HEPATIC STELLATE CELL ACTIVITY

Liver stellate cells are key players in fibrosis. Suppressing HSC activity and promoting its destruction is an important antifibrosis treatment. Studies using liver biopsies have shown herbal antifibrosis treatment can reduce the number and activity level of hepatic stellate cells.²³

SUPPRESS THE SYNTHESIS AND SECRETION OF EXTRACELLULAR MATRIX

Serum markers such as hyaluronic acid, laminin, collagen IV, and pre-collagen III are frequently used as fibrosis markers as they are all components of the extracellular matrix (the “glue” between cells). Ginkgolides has the effects of inhibiting cytokines that promote collagen deposition in the ECM.²⁴ Salvolic acid B has shown suppressive effects on the secretion of TGF- β 1 (which promotes ECM activity) by HSC, and also inhibits collagen synthesis in HSC.²⁵ Antifibrosis formula 861 has been shown to reduce the levels of total collagen and type I, III, and V collagen.²⁶

PROMOTE THE DECOMPOSITION OF ECM

Fibroblastic (fiber making) and *fibrocatalytic* (fiber degrading) activities exist side by side. In the early stages of fibrosis, the levels of catalytic enzymes called matrix metalloproteinases (MMP) also increase. However, this increase is not enough to completely contain increased fibroblastic activities. In the late stage of liver disease, MMP activities decrease and results in significant decline of fiber catalytic activities. This in turn, causes the net increase of the ECM.

Chinese herbal treatments, such as formula 861, can increase MMP *gene* expression and activities, which strengthens the catalytic activities of collagen to reduce the ECM.²⁶ Herbal active ingredients ginkgolides, glycyrrhizin, cordyceps, extracts of *Persicae Semen*, and oxymatrine all promote the decomposition of ECM.²⁷

PREVENT LIVER SINUSOID CAPILLARIZATION

The deposit of collagen IV and laminin triggers liver sinusoid capillarization. This is a very important *pathological* change during liver fibrosis and hinders the exchange of chemical substances between liver cells and the blood circulation. It also increases resistance to blood flow through the liver causing portal hypertension. Oxymatrine and Cordyceps *sinensis* may reverse the capillarization process and improve material exchange between liver cells and the blood circulation.²⁸

Antifibrosis Herbs and Their Active Ingredients

Based on clinical and experimental research in China, the following herbs have been found to have antifibrosis effects²⁹:

<i>Cordyceps sinensis</i>	<i>Bos Taurus demesticus</i>
<i>Glycyrrhiza uralensis Fisch</i>	<i>Gleditsia sinensis</i>
<i>Salviae Miltiorrhiziae Radix</i>	<i>Stephania tetrandra</i>
<i>Cnidii Rhizom</i>	<i>Curcuma longa</i>
<i>Sophorae Subprostratae Radix</i>	<i>Notoginseng Sanchis Radix</i>
<i>Rhei Rhizoma</i>	<i>Angelicae Radix</i>
<i>Persicae Semen</i>	<i>Astragali Radix</i>

For detailed information on the action of these herbs, see *Appendix III*.

Antifibrosis Herbal Formulas

In recent years, there has been much progress in the field of antifibrosis treatment using herbal formulas.³⁰ Formulas can organize and combine the pharmacological actions of single herbs to address multiple targets and different areas of the fibrosis pathway. When designing formulas, anti-inflammatory and antifibrosis compounds are used as the main ingredients, while other herbs that are immune supportive, tonifying, and invigorating are used to enhance the formula's overall therapeutic effect.

Examples of these formulas include:

Xue Fu Zhu Yu Tang

Fu Zheng Hua Yu Fang

Ge Xie Zhu Yu Tang

Bu Yang Huan Wu Tang

Herbal Formula 861[®]

Treating Hepatitis C–Related Complications and Symptoms to Improve Quality of Life

Control Bile Retention and Jaundice

Chronic viral hepatitis patients often exhibit thickened bile that may become blocked by inflamed liver tissue. This can cause jaundice, gall bladder inflammation, and gallstones. Bile retention can also injure the liver and further promote fibrosis. This leads to a rise in *liver enzymes* and *bilirubin* level in the blood. Therefore, improving bile secretion is an important treatment goal in hepatitis. The following formulas can be used to release blocked bile and clear jaundice:

Gall No. 1 Capsule[®]

Capillaris Combination (*Yin Chen Hao Tang*)

They can also be used to treat gallbladder inflammation and to eliminate small gallstones.³¹

Lower Portal Vein Pressure

Portal hypertension is the main cause of many complications in advanced chronic liver disease. Portal hypertension is usually present in people with cirrhosis and can lead to *ascites* (accumulation of fluid in the abdomen), *edema* (accumulation of fluid in the feet and lower legs), spleen enlargement, and *varices* (abnormal expansion of veins). Thus, reducing portal pressure is important for patients with advanced liver disease. To lower *portal vein* pressure, we use Red Peony Capsule[®], which can lower pressure in the portal vein, spleen, mesenteric, and esophagus veins. This formula also has antifibrosis effects.

Improve Fatigue

The liver is the major powerhouse of the body. When liver function deteriorates, the patient often experiences fatigue. The improvement of fatigue symptoms relies mainly on the improvement of liver function. If fatigue is the major problem, it can be treated with the Cordyceps Capsule[®]. This formula can improve energy level and has antifibrosis effects.

Insomnia

Sleep disorders are a common complaint among hepatitis C patients. Prescription sleep medications can be addictive and cause side effects such as morning drowsiness. In addition, prescription medications may also be toxic to the liver. The herbal formula, HerbSom Capsule[®] addresses this problem without harmful effects on the liver and is not addictive.

Control Autoimmune Reactions Such as Joint Pain, Skin Rashes, Vasculitis, Psoriasis, and Sjögren Syndrome

Patients with hepatitis C often exhibit *autoimmune* symptoms and syndromes. Our treatment strategy is to regulate the body's autoimmune response. In our clinic, we use the AI #3 Capsule® and Circulation P Capsule®.

Stabilize Blood Sugar

One of the liver's functions is assisting in *blood sugar* regulation. The amount of sugar in the blood increases after eating. Excess sugar is turned into *glycogen* and is stored in the liver. When blood sugar drops, glycogen in the liver is broken down into *glucose* and is released into the blood. This process is sometimes disrupted in chronic hepatitis C patients, causing blood sugar abnormalities. We use the BM (Bitter Melon) Capsule® formula to treat HCV-related blood sugar abnormalities.

Prevent External Infections

During the course of chronic hepatitis C, patients may become ill with other infectious diseases such as colds, sinusitis, and bronchitis. Antimicrobial herbs can be used to fight external infections. The most important herbal remedy we use for infections is the Allicin formula®. The Coptis Capsule® may also be used to fight infections.

Control Fluid Retention: Ascites and Edema

Ascites (fluid accumulation in the abdomen) and edema (fluid accumulation in the feet and legs) can occur with cirrhosis and *liver failure*. We use Red Peony Capsule® to lower portal pressure and Cordyceps to raise the albumin level. At the same time, an herbal formula such as R-788 Capsule® can be used to expel excess water from the body.

Control Bleeding

Cirrhotic patients may be at risk for *bleeding varices*. Bloody vomiting and/or passing of black, tar-like stools may accompany the bleeding. Bleeding from varices is a medical emergency. If this happens, the patient should go to the emergency room immediately. Bleeding from the gums or nose are more common and less serious forms of bleeding that occur in cirrhotic patients. The classic herbal formula Yunan Bai Yao Capsule is used to treat less serious types of bleeding.

Control Gastrointestinal Irritation and Diarrhea

Diarrhea is a common complaint of people with chronic hepatitis C. Diarrhea often improves as liver function improves. If diarrhea lasts and becomes severe, the following formula can be used: Ginseng and Atractylodes Formula.

Control Nausea And Vomiting

Nausea is more common than vomiting in people with chronic hepatitis C. It can occur when bile secretion is blocked. If these complaints become persistent, the following formula can be used: Pinellia and Hoelen Combination.

MCM Treatment of Postviral Hepatitis Syndrome

After successful clearance of HCV, some people may still experience lingering symptoms. This is called post viral hepatitis syndrome (PVHS), a concept recently coined by viral hepatitis medical researchers in China. PVHS is a clinical condition in which the patient complains discomfort in the liver area, nausea, vomiting, stomach distension, indigestion, fatigue, mental fog, and joint pains. These symptoms may persist for a few months to a few years.

From the western medical standpoint, if the virus has been eradicated, the patient is considered *cured*. However, according to the Chinese medical definition of cure, if the patient has not returned to a healthy state, he or she is not considered fully cured. In PVHS, despite abnormal symptoms, the virological, biochemical, and *histological* examination are normal. Thus, there is no diagnosis or treatment in conventional medicine.

In our clinic, we have seen a few dozen patients who were sustained virological responders to interferon-based therapy, but still exhibited liver disease symptoms. This is usually caused by the accumulation of liver and other systemic damage over the years of infection.

One study observed 36 cases of PVHS (22 males, 14 females). The symptom patterns were recorded among the patients were:

- 100% (36/36) liver area discomfort
- 61% (22/36) joint pain
- 47% (17/36) fatigue
- 36% (13/36) nausea
- 31% (11/36) stomach broadness
- 6% (2/36) vomiting

These patients were examined thoroughly with biochemical, histological, immunological, and virological tests and the findings were all negative. However, the symptoms persisted and hospitalization was required for several patients with severe symptoms.³²

The exact cause of PVHS is not clear. Chronic viral hepatitis patients often exhibit *immune globulin* disorders (such as the presence of rheumatoid factor, ANA, and *cryoglobulins*), which can cause symptoms outside the liver. The pathology of PVHS may also be related to circulating immune complex (CIC) deposits in tissues. The CIC deposits can cause inflammatory reactions and is known to be responsible for causing rheumatoid arthritis-like symptoms. Another possible cause of PVHS is that the functions of the liver have not been completely restored after previous viral infection. These conditions demonstrate that chronic viral hepatitis is not just a standalone viral infection, it is a systemic disease. Thus, a comprehensive treatment strategy is required to cover multiple areas of the pathology.

Herbal formulas such as Minor Bupleurum Combination (Xiao Chai Hu Tang), Bupleurum and Rehmannia Combination (Chai Hu Qing Gan Tang), Siler and Platycodon Formula (Fang Feng Tong Sheng San), Tang-kuei and Bupleurum Formula (Xiao Yao San) and Bupleurum and Evodia Combination (Shu Gan Tang) can be used for PVHS. Some single herbs and their active ingredients can also be used, such as glycyrrhizin, ligustrin, schisandrin, and silymarin to restore liver functions. AI #3 Capsule® can be used to reduce the globulin production, and Circulation P Capsule® can be used to promote the removal of CIC deposits.

We use the following herbal formulas to treat PVHS patterns: Hepa F. #2 Capsule®, Glycyrrhizin Capsule®, Ligustrin Capsule®, Circulation P Capsule®, AI #3 Capsule® and Cordyceps Capsule®. The treatment should last at least a few months until all symptoms have resolved. In addition to herbal treatment, psychological counseling, a balanced diet, and proper physical exercises are also important to promote recovery from PVHS.

Intended Endpoints of MCM Treatment: “Cure” With MCM

Chinese medicine defines cure as the body’s return to balance and normal functioning. According to Chinese medicine, the ultimate goal of healthcare is to restore a person’s health, body functions, and a normal life expectancy.

The goals of MCM treatment for hepatitis C are to arrest and reverse the impact of HCV infection. In turn, quality of life improves and there is a reasonable expectation for a normal life span. Long-term and ongoing treatment may be required but as the patient is able to live a normal quality of life and prolong life expectancy, they have sufficient time to wait for more effective and safer treatments in the future.

The Advantages and Shortcomings of MCM Treatments for Hepatitis C.³³

The Advantages of Using MCM to Treat Hepatitis C:

- MCM is an individualized treatment system based on patient's health status and disease status. It is a holistic and multilevel treatment strategy.
- It can improve and release the subjective symptoms and objective physical signs and improve the patient's life quality.
- It can control liver inflammation, improve liver functions, and release jaundice. These effects can be tested and measured by laboratory examinations.
- It can improve immune function and the overall health of the patient.
- It has virtually no side effects and is easily accepted by patients.

The Shortcomings of MCM Treatment for Hepatitis C

- As of now, MCM cannot eradicate HCV. Therefore, it is not a curative treatment.
- In clinical outcomes, assessment of efficacy mainly relies on biochemical tests. Major clinical events such as cirrhosis and the development of *liver cancer* as prognostic markers were not frequently used as assessment tools.
- Due to financial limitations, most MCM clinical trials are not strictly controlled and do not adhere to the standards of conventional western clinical trials. MCM relies primarily on clinical observation and the experience of the practitioner.

Reasons for Using MCM Therapies and Who May Benefit

Chinese herbal treatments for HCV have many positive features.

- effective
- time-honored
- easy to take
- affordable (15-20 times less expensive than western medication)
- virtually nontoxic
- largely side effect free
- work life-long

However, MCM remedies do not eradicate HCV. It provides an alternative solution for people who are unwilling or unable to use conventional medicine. For these people, TCM or MCM may be a viable alternative. "In the US, it is likely that more patients with hepatitis C use nonprescription agents of unproven effectiveness than interferon-based therapy."³⁴

For the approximately 50% of people who do not respond to conventional treatment, MCM can be used to help improve liver function, slow down the development of fibrosis, and improve overall quality of life. MCM used together with western treatments usually yields better results than either one used alone. Ideally, these two systems can be used together to complement each other. Patients on interferon-based therapy may wish to use MCM herbal treatments to mitigate treatment side effects.

Reasons for Not Using MCM

Common reasons given for not using TCM or MCM include:

- It is not intended to eradicate HCV, so it is not a “cure.” The concept of “cure” in TCM and MCM is different than it is in western medicine.
- TCM and MCM herbal remedies are unproven. They have not gone through rigorous scientific testing. Most TCM and MCM remedies are customized to meet the specific needs of the client, taking into account other conditions and limitations. It is very difficult to conduct clinical trials with herbal remedies because TCM and MCM do not subscribe to the “one size fits all” approach of western medicine. In many cases, this means clinical trials would be invalid because they would be comparing “apples to oranges.”

The National Center for *Complementary and Alternative Medicine* (NCCAM) Internet page “Hepatitis C: Treatment Alternatives” labeled TCM and MCM as having “no research to a limited amount of research.” Because most of the published research on TCM and MCM is in Chinese, this issue is further complicated.

- The FDA does not regulate herbal products, so using herbs can be dangerous. You may not get what you are supposed to get.

This can be true, especially if the herbalist is not well versed in the plant pharmacology and toxicity data. Because of this potential danger, it is important to verify the credentials of any herbalist you decide to consult.

The Internet site at www.consumerlab.com is a privately owned, and monitors the quality of *nutritional supplements* and herbs. You may find this site useful. If you choose to take herbal products, it is very important to confirm the quality of the herbs or products.

- Herbal medicines are not stable with respect to their active essence because species, collecting seasons, and production sites vary.

The method of preparation (drying, steaming, and decocting) can dilute the active essence of an herb. It is also argued that herbal medicines are inconvenient to prepare for ingestion. Finally, herbal medicines can be perceived to be bitter and unpleasant to ingest.

These drawbacks can be alleviated through scientific preparation procedures to achieve a consistent amount of active ingredients. In addition, herbal extracts can be concentrated so that the daily dosage is small and requires no special preparation. Since capsule, tablet, and granular forms of herbal preparations are placed on the tongue and swallowed with a large glass of water, poor taste need not be a deterrent.

- The numbers of different chemicals in herbs make it hard to control their interactions with conventional drugs.

**If you are taking any herbal products, you need to tell your western doctor.
He or she will be able to advise you about any possible interactions.
Your herbalist can also advise you about this.**

Anecdotal Stories of Treatment Success With MCM

An *anecdotal* story is one that is not based on a controlled, clinical trial, but on an individual’s personal experience. Whether or not the results of anecdotal stories have value is up to you.

On the next page are two stories of success and two stories of failure based on cases from my clinic in New York City. Patient names have been changed.

Joseph V.

Joseph V. is a New Jersey firefighter. He was diagnosed with hepatitis C in 1996. When he saw me in 1997, he was on disability and his ALT was quite high (above 300). He felt tired and could not work. Two months after herbal treatment, his liver enzyme levels normalized, and he went back to active duty as a firefighter. His western healthcare provider convinced him to try interferon, and he did not want to lose the chance to try this FDA-approved therapy. He stopped taking herbs and went on interferon for eight months. During this time, he went back on disability and felt very sick. When the treatment was finished, his ALT went up to 380. At that point, his western doctor suggested the combination of interferon and ribavirin. He refused. He came back to me for treatment and resumed herbal therapy. Within two months, his *liver function tests* normalized. He has since returned to active duty as a firefighter and has married. He told me the herbal treatment helped him to put his life together and gain the confidence to build a family.

Lorraine D.

Lorraine D., 41, works for a large pharmaceutical company that produces interferon. She was diagnosed with hepatitis C in 1997. She might have contracted the virus seven years earlier. In March 1998, she stopped a seven-month course of interferon treatment. At that time, her liver function tests were normal. However, the side effects of interferon forced her to discontinue treatment. Her platelet count dropped to a dangerously low level. She often had bruises on her skin. She was diagnosed with idiopathic thrombocytopenia *purpura* (ITP), an autoimmune disease. She was put on steroids to treat the ITP. Her *thyroid gland* was also not functioning well. She was given synthetic thyroid *hormone* to correct her thyroid function. The steroids helped her platelet count increase in two months, but they triggered a *relapse* of liver inflammation. She came to see me in May 1998 after this relapse. Her ALT and AST were both abnormal. Her viral load was at 27 million, much higher than before interferon treatment. Lorraine was very tired and had pain in her liver area and joints, dark urine, and occasional diarrhea with pale stool. Her skin and *conjunctiva* (the skin around the inside of the eyes) were yellowish. In addition, she had a *pituitary tumor* as an underlying condition, which made her situation quite complicated. Her western healthcare provider recommended interferon and ribavirin, but she refused.

I first focused on her liver inflammation. Her ITP and thyroid gland abnormality showed that her liver inflammation had autoimmune involvement. I emphasized anti-autoimmune therapy. She began taking Hepa Formula No. 2[®], Glycyrrhizin Capsule[®], Ligustrin Capsule[®], AI Capsule No. 3[®], Circulation Tablet No. 1[®], and Formula R6379[®] (for *hypothyroidism*). One month later, her blood tests showed that all liver enzyme levels had normalized. Her platelet count increased and her thyroid tests normalized. She was ecstatic because the treatment had normalized her ITP and rid her of hypothyroidism and liver inflammation in only one month. Her liver enzyme levels have been normal since that time, except once in reaction to a drug treatment for edema in her ankles. She is now on a maintenance protocol. All of her symptoms are gone.

More than 3,000 patients at Zhang's Clinic in New York City have used the protocols described. In January 2000, we had test results on file for over 400 patients. A scientific analysis was conducted by reviewing the medical records of 75 patients for whom both pre- and post-treatment ALT levels were available. ALT was used to determine whether the protocols were effective. The average before treatment ALT level was 128 (± 114), and the average after-treatment ALT level was 47 (± 42). Of these 75 patients, 77% experienced normalization of their ALT, and 93% experienced ALT improvement. All patients reported improvement in their symptoms. Four patients had *liver biopsy* results available before and after herbal treatment. Three of the four patients experienced regression of liver fibrosis from stage III to stage I after herbal treatment.

Anecdotal Stories of Treatment Failure With MCM

About 10% of the patients using Chinese medicine protocols do not get favorable results.

Doug F.

Doug F., 50, visited my office in August 1999. He was first diagnosed with non-A, non-B hepatitis (hepatitis C) in 1977 after a blood transfusion. He was a heavy drinker from age 17 to 29. His liver enzymes were very high (ALT 426, AST 155). His viral load was 48,000. He had *genotype* 1a HCV. He occasionally felt fatigued, his urine was golden yellow, and he sometimes had diarrhea. After approximately one month on the herbal treatments Hepa F. #2[®], Ligustrin[®], Glycyrrhizin, AI #3[®], and Circulation #1[®], his ALT and AST decreased, but his viral load went up to 200,000. He was very happy with these results. Approximately one month later, his ALT and AST levels went back up. Although his ALT level went back down approximately one month later, his AST continued to rise. He was very depressed and felt more fatigued. From then on, the results on his liver enzyme tests were continuously worse. In January 2000, he had a liver biopsy and found that his inflammation *grade* was II and the fibrosis stage was II. His ALT and AST continued to be markedly elevated, and his viral load was greater than one million. I tried using second-line herbal remedies and switched the Hepa F. #2[®] to Hepa F. #1a[®]. In March 2000, his ALT and AST dropped, but he lost confidence in herbal treatment and went on western therapy.

Bruce D.

Bruce D., 61, was diagnosed with hepatitis C in 1984 as non-A, non-B hepatitis. He might have become infected in 1975. His HCV genotype was 1b. Before he started an herbal protocol in December 1998, his baseline liver function tests were ALT 389, AST 192, and viral load 2.6 million. His liver biopsy showed stage II-III fibrosis with marked active ongoing inflammation (grade III). His blood clotting studies were slightly abnormal. He had been an alcohol drinker, but stopped drinking four years earlier. Clinically, he had a gassy stomach, loose stools, and slightly yellowish skin, but no other obvious symptoms.

He started a first-line protocol of Hepa F. #2 Capsule[®], Ligustrin Capsule[®], Glycyrrhizin Capsule[®], AI#3 Capsule[®], and Circulation #1 Capsule[®]. In the first year (1999), his ALT levels improved. Once in July 1999, when his ALT went up to 276, I added a new herb, Panicle Tablet, which brought the ALT back down. His viral load was sometimes very high. In 2000, his ALT shot up again. Beginning in March 2000, I switched him to a second-line protocol, which included using Hepa F. #1a[®] to replace Hepa F. #2[®]. This change did not generate any significant positive effect.

Summary

TCM and MCM have been used for thousands of years by millions of people to promote health and provide therapy when health is impaired. Chinese medicine doctors are treating one third of world's viral hepatitis patients and they have great deal of experiences and skill in treating viral hepatitis.

TCM and MCM provide an effective and well-documented treatment methodology for patients with hepatitis C, which is a multilevel, regulatory treatment. The main goal of treatment is to control liver inflammation and halt or reverse the progression of fibrosis.

Each practitioner of TCM or MCM uses his or her own herbal formulations and methods to treat hepatitis C based on his or her training background. If you are currently seeing a TCM practitioner or are considering TCM or MCM as a treatment option, be sure to check your practitioner's training and qualifications. The Resource Directory at the back of this book provides information on locating a TCM practitioner.

Regardless of what options you decide to pursue in the treatment of your hepatitis C, be sure to inform all of those in whom you entrust your healthcare of all the approaches you are using.

References

1. Peng WW, et al. *The Studies of Viral Hepatitis*. Guangzhou, China: Guong Dong Science and Technology Press; 1999.
2. Chen KJ. Some thoughts on Advancement of Chinese Medicine. *Chinese J of Integrated Traditional and Western Medicine*. 2000;20(4):294.
3. Ji ZP, Review and prospect of integration of traditional Chinese and western medicine in past 30 years. *Chin J Integr Me*. 1988;8:88-89.
4. Jian J. Some Thoughts on traditional Chinese medical Hepatology. *Chinese J of Integrated Traditional and Western Medicine on Liver Diseases*. 2005;15(2):65.
5. Wang CB. Integrated TCM-WM research of viral hepatitis. *Chin J Integr Med*. 1988 8(2):152-156.
6. Su XS et al. Clinical observation and laboratory studies on glycyrrhizin treatment for acute and chronic viral hepatitis. *TCM Journal*. 1982; 11:33-36.
7. Li TM, et al. The antiviral effects of extracts of licorice roots. *TCM Herbology*. 1994;25(12):655-658.
8. Nakashima H, et al. A new anti-HIV substance glycyrrhizin sulfate. *Jpn J Cancer Res*. 1987;78(8):767-771.
9. Jie YB. *Pharmaceutical Action and Application of Available Composition of Chinese Materia Medica*. Harbin, China: Helongjian Science and Technology Press, 1992.
10. Oleanolic acid study Group. *Pharmaceutical Bulletin*. 1980;(12):46.
11. Wang JT, et al. A Review on Treating Hepatitis B with Chinese Medicinal Herbs. *Chinese J. of Infectious Diseases*. 1991;9(4):208.
12. Zhang Z et al. Anti-HBV Effects of 60 Chinese Medicinal Herbs. *Academic J of Beijing Medical University*. 1988;20(3):211.
13. Zhang QC. The efficacy of Zheng's Chinese herbal protocol in treating hepatitis C patients – A retrospective analysis of its clinical practice. In: *Healing Hepatitis C with Modern Chinese Medicine*. New York, NY. Sino Med Research Institute, 2000, New York
14. Wang BH. *The Progression of Hepatology*. Shanghai Science and Technology Press; 1991.
15. Wang BH, The reversibility of liver fibrosis and cirrhosis. *CJITWM on Liver Diseases*. 2000;10(supplement):2.
16. Tang ZM, et al. Expounding on the relationship between liver-blood-stasis and hepatic fibrosis. *Chin J Basic Med TCM*. 1996;2(3):14-17.
17. Song JW, et al. Effects of different component in decoction Xue Fu Zhu Yu decoction on anti-hepatofibrosis. *CJITWM on liver diseases*. 1995;5(2):23-25.
18. Zhang JY, et al. Ge Xie Zhu Yu Tang's effects on the expression of rat TMP-1/2. *J of TCM Information*. 2004;21(3):66-68.
19. Zheng ML, et al. The basic study and clinical research on hepatic fibrosis. People's Health Press; 1996.
20. Chinese Society of Integration of Chinese and Western Medicine ed. *Studies of Blood Stasis and Blood Circulation Promoting and Stasis Expelling*. Beijing: Xuewan Press; 1990.
21. Gao CF, et al. Hepatic stellate cells and the liver fibrosis. *Clinical J of the Liver and Gallbladder Disease*. 1994;10(3):125.
22. Paradis V, et al. In situ detection of lipid peroxidation byproducts in chronic liver diseases. *Hepatology*. 1997;26(1):135-142.
23. Yu H. et al., Herbal Compound 861 on apoptosis of hepatic stellate cells. *CJITWM on Liver Disease*. 2000;10 (6):32-33.
24. He Ming, et al. Clinical study on treatment of pulmonary interstitial fibrosis with Ginkgo Extract. *CJITWM*. 2005;25(3):222-224.
25. Hu YY, et al. Effects of salvianolic acid A on collagen type I and its gene expression of experimental rats with hepatic fibrosis. *Chin J Tradit Med Sci & Technol*. 1999;6(4):235-236.
26. Jia JD et al. TCM therapy for hepatic fibrosis. *Chin J Hepatol*. 2001;9(4):120-121.
27. Wang Li, et al. The extracts of ginkgo's effects on the MMP-2 of experimental liver fibrosis. *Medical J of Shan Dong*. 2004;44(1):27-29.
28. Lu LG, et al. Oxymatrine's effects on the expression of type I, III, IV collagen in carbon tetrachloride induced rat liver fibrosis. *World J of Chinese on Digestion*. 2003;11(10):1488-1491.
29. Chen Y, et al. The progress of the studies on the mechanisms of antifibrosis Chinese materia medica in recent three years. *CJITWM on Liver Diseases*. 2005;15(4):249-252.
30. Chen J, et al. Recent progress on the studies of anti-liver fibrosis herbal formulas. *CJITWM on Liver Diseases*. 2004;14(4):252-254.
31. Fu JY. *Chinese Medical J*. 1956;42(10):930.
32. Li WW, et al. Report on 36 post-hepatitis syndrome. *Chin J Integra Tradi & Western Med on Liver Diseases*. 2004;14(1):15.
33. Huang YZ. The advantages and shortcomings of MCM treatments for hepatitis C. *CJITWM on Liver Diseases*. 2005;15(2):120-121.
34. Schiff ER, et al. *Schiff's Diseases of the Liver, Eighth Edition*. 1999.

