

A NONTOXIC PROTOCOL

COMBINING WESTERN SCIENTIFIC DIAGNOSTIC TECHNIQUES WITH HERBS, SUPPLEMENTS AND TRADITIONAL CHINESE MEDICINE, THESE PRACTITIONERS HAVE SEEN REMARKABLE SUCCESS IN TREATING THIS EPIDEMIC LIFE-THREATENING ILLNESS.

Overcoming Hepatitis

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HE LIVER IS THE LARGEST INTERNAL ORGAN IN THE HUMAN BODY.

Its functions are amazingly complex, affecting virtually every metabolic process, either directly or indirectly. The liver carries out hundreds, if not thousands, of sophisticated enzymatic reactions along numerous metabolic pathways. Due to its effect on the nutritional state of the body, when liver function is compromised, other aspects of health may suffer as a result. •

The liver also provides the body's primary way of dealing with pollution and toxins. In its programmed efforts to rid the body of man-made toxins, the liver can paradoxically generate toxins that damage its own tissue. Considering that in our daily lives we deal increasingly with man-made environmental toxins such as pesticides, auto exhaust, pollution, pharmaceuticals and the like, it should not be entirely surprising that liver disorders are pandemic.

WHAT IS HEPATITIS?

Hepatitis is defined simply as inflammation of the liver. The major causes of hepatitis are specific viruses, alcohol and drugs, while the less common causes are bacterial, parasitic

or fungal infections. Hepatitis A, B and C are all infectious.

The Hepatitis C virus (HCV) is a single-strand RNA virus that can mutate into multiple HCV subtypes due to the fact that the virus does not have a repair mechanism to fix changes in its DNA. Some subtypes are more virulent than others.

Transmission of HCV is through blood. It is estimated by the Centers for Disease Control, (CDC) that as much as 2% of

the total population of the United States—or up to 5.5 million people—may be chronically infected with HCV. It is by far the leading reason for liver transplants and is responsible for eight to ten thousand deaths yearly in the United States alone. It is estimated that 75% of people infected develop a chronic condition.

The symptom picture of HCV varies over time. Initially the virus may remain asymptomatic for many years, followed by vague symptoms like fatigue, depression, mental confusion and sometimes low-grade fever and upper abdominal discomfort. With most people, a diagnosis is made at this stage, often following routine blood work. Later, as the disease progresses, other more serious signs such as liver enlargement, cirrhosis and mental decline may occur. The time from infection to end-stage liver disease may be as long as 20 or even 30 years. It stands to reason that a healthy lifestyle with a minimum of toxins and alcohol may slow this progression.

HOW IS HCV TREATED?

The "standard" or "Western"

treatment of HCV tends to be focused on patients with evidence of progressive liver disease by biopsy after these patients present with symptoms. Current standard therapy includes alpha-interferons, sometimes combined with another anti-viral medicine, ribavirin (Rebetol). Interferons are proteins that are naturally occurring in the human body and that have been shown to have anti-viral, anti-inflammatory and anti-scarring properties. However, there are significant side effects with pharmaceutically produced interferons, including debilitating depression. As a result, many patients treated with alphainterferons also are prescribed SSRIs (Selective Serotonin Reuptake Inhibitors—a class of anti-depressants that includes Prozac and Zoloft), usually starting a month prior to beginning the treatment as a preventative measure.

In addition to the problem of requiring multiple medicines with side effects, only about 20% of those treated respond to alpha-

interferon therapy, and that percentage is even lower in people infected with the more virulent strains. Also, the possibility of developing a vaccine for HCV has been hampered by the propensity of the virus to alter its amino acid pattern over time in infected individuals.

DEVELOPING ALTERNATIVES

In formulating a new response to an emerging illness, we build on the successes and research in related areas. In our clinical practice, our attention was drawn to HCV as an outgrowth of working with AIDS patients. Protease inhibitors, which are used as an AIDS treatment, sometimes produce high levels of liver toxicity.

We began to pay attention to herbal protocols that would mitigate and repair this damage. At about the same time, we began to use alternative anti-viral agents in the treatment of herpes (HHV) and warts caused by human papilloma virus (HPV), and began seeing clinical success. These successes encouraged us to investigate alternative treatments for Hep C.

We discovered that a number of useful therapeutic alternatives exist. The work of master herbalist & acupuncturist Christopher Hobbs of Santa Cruz, California, included the use of medicinal mushrooms and was of particular interest to us. It became apparent that a protocol aimed at both repairing existing liver damage & successfully attacking the virus itself would have the greatest clinical value.

Initial clinical results were encouraging. Edward, a 42-year-old male, had been diagnosed in 1998 after blood work revealed elevated liver enzymes. The liver enzymes AST (SGOT) and ALT (SGPT) are a measure of how many liver cells are being shed. An elevated count is a sign of dysfunction or disease, and the inability of the body to reverse the damage. Further testing also showed a viral load of over 400,000 copies.

Lab work was done again six months after Edward had been on the protocol outlined below. At that time his liver enzymes had

returned to normal. A year later, his liver enzymes remained normal and viral load was reduced by half. (It generally takes longer to see a lowering of the viral load than to see a drop in elevated liver enzymes.) Subsequent testing has shown his liver enzymes remaining normal and viral load continuing to decrease.

This case is fairly typical of what we see at our clinic. With over thirty cases documented in our practice to date, we feel we can safely say that we are seeing improvement similar to this case in 70% of our patients. We have even seen dramatic turnaround in several patients with late-stage liver disease.





Amanita "death cap" mushroom poisonings, which cause liver failure, give us a gold standard in finding liver-protective substances. French researchers brought milk thistle to the world's attention for its ability to sharply reduce amanita mortality rates.

I. REVERSING LIVER DAMAGE

Liver damage due to viral attack is similar to that seen in toxic chemical or alcohol exposure. As the virus attacks the specialized cells of the liver, problems begin. Viral invasion of these parenchymal cells (those cells that do the work of a given organ, in this case the liver) initiates the release of inflammatory, oxidizing substances. Immune cells arrive in the area and release more oxidants.

These activities initiate cascades of peroxidative membrane damage to the liver cell membranes. Oxidative stress leads to a fatty or clogged liver. Damage from HCV also reduces the antioxidant ability of substances that normally are helpful. These include protective antioxidant enzymes and water-soluble antioxidants such as glutathione, cysteine and taurine, which neutralize toxic products. A number of substances have proven useful in mitigating and reversing this damage.

MILK THISTLE (SILYBUM MARIANUM)

The common milk thistle contains some of the most potent liverprotective substances known, collectively referred to as silymarin. Silybin is the most significant active ingredient in silymarin. In human studies, silymarin has demonstrated positive effects in treating liver diseases of various kinds, including chronic hepatitis, cirrhosis, fatty infiltration of the liver and inflammation of the bile duct. Silymarin's effect in preventing liver destruction and enhancing liver function is due to its ability to inhibit free radicals. These compounds are produced by the transfer of oxygen to a polyunsaturated fatty acid, a reaction which requires the enzyme lipoxygenase. Silymarin inhibits this enzyme, limiting the formation of these damaging compounds.

One of the more interesting effects of silymarin is that it has also been shown to promote liver protein synthesis. The result is an increase in the production of new liver cells to replace damaged ones. Thus, milk thistle serves both repair and preventative functions for the liver.

PHOSPHATIDYL CHOLINE

Phosphatidyl choline (PC) is a universal building block for cell membranes. Most liver metabolism occurs on the cell membranes (which occupy about 33,000 square meters in the human body). Over 20 years of clinical trials indicate that PC protects the liver against damage from alcoholism, pharmaceuticals, toxic pollution and viruses, most of which cause damage to cell membranes.

Human studies have shown that a silybin-phosphatidylcholine complex may be more effective than when either is used separately.

ALPHA LIPOIC ACID

Alpha lipoic acid is known as the universal antioxidant. Its unique structure, being both fat- and water-soluble, gives it access to the whole body. It regenerates other antioxidants like vitamins C and E and Co-enzyme Q-10, and also boosts glutathione levels quite dramatically. In related research, glutathione has been shown to in

hibit HIV replication through a blocking mechanism. It prevents signaling of a binding site on the virus that ordinarily initiates replication.

Amanita "death cap" mushroom poisonings, which cause liver failure very directly, give us a gold standard in finding liver-protective substances. Dr. Burton Berkson, currently of Albuquerque, used alpha lipoic acid to save the lives of two amanita victims. (Earlier, French researchers brought milk thistle to the world's attention for its ability to sharply reduce mortality rates from the amanita death cap.) Alpha lipoic acid is effective for much more than amanita poisoning; in fact, it can be considered a universal detoxifier. Radiation, heavy metals, solvents, pesticides, drug and alcohol liver damage—alpha lipoic handles it all.

When the liver is under stress, alpha lipoic can be rapidly depleted, as it is very important to the metabolic pathways of the liver. It therefore is an essential healing agent for recovery of the liver.

Several medicinal mushrooms help attack HCV. An extract of shiitake is at the core of treatment in Japan, where the most virulent strain of HCV is found.

II. TREATING THE VIRUS

We have

found that certain compounds effectively reduce the viral load. Seeing results in this process takes much longer than seeing a drop in the elevated liver enzymes. However, in a period of about three months we generally see progress. The main antivirals we use are LEM (Lentinus elodes mycelium)—an extract from the mycelium of shiitake

mushroom—as well as reishi mushroom, olive leaf extract and selenium.

OLIVE LEAF EXTRACT

Dr. H.E. Remis Ph.D., a virologist working for the Upjohn Pharmaceutical Company, discovered that a compound found in oleuropein—the main component extracted from olive leaf—was virucidal against all viruses tested in *vitro* (in the test tube). It was particularly effective against the herpes family as it interfered with the protein coat of the viruses. *In vitro* success did not extend to *in vivo* (live) animal studies, however, because calcium elenolate—

the active ingredient—quickly bound to proteins in the blood and was therefore rendered ineffective against viruses. It took 26 years of work to develop an extraction process that overcame this problem. In 1994, independent researchers developed an extraction process that created a potent broad-spectrum anti-infective agent, which is now commercially available.

It is important to "titrate up" (give incrementally larger doses) gradually because olive leaf is a broad-spectrum agent. The patient needs to be able to acclimate and tolerate the die-off effect as pathogens are killed. Suggested use is 15% oleuropein, taken three times a day.

SELENIUM

Selenium is an indispensable part of the enzyme glutathione peroxidase, which protects cells from oxidative stress and damage. Glutathione is a key component in preventing free radical pathology.

In addition to selenium's role as an antioxidant, recent research shows the importance of selenium in the progress of viral diseases. A study at the University of Miami, for example, looked at many factors in predicting death in HIV infection. The only two conditions found to independently predict were CD4 counts (a measure of immune cell activity) and the level of selenium in the body. Selenium declines consistently as HIV progresses.

Once HIV has used up the reserves of selenium in the infected cells, it infects adjacent cells. Other viruses that act similarly include Ebola, mouse mammary virus, coxsackie and Hepatitis B and C. The body's need and tolerance for selenium is situational. Selenium, like other essential nutrients, can be toxic at high levels.

ANTI-VIRAL HEPATITIS C FORMULA

Combining what we consider the most effective herbs for treating liver dysfunction and viral attack, we have developed a combination treatment medicine in powder form. (See "Contacts" for purchasing or additional information.) What we refer to as the "Hep C powder" consists of seven ingredients:

Lentinula Edodes (Shiitake)	2 parts
Ganaderma Lucidum	0 parts
(Reishi, Ling Chih, or Lingzhi)	5 parts
Coriolus (Trametes Versicolor, Yun-Zhi)	5 parts
Schizandra (Wu Wei Zi)	4 parts
Angelica Sinensis (Dong Quai)	4 parts
Licorice (Ganzao)	2 parts
Salvia Miltiorrhizae (Dan Shen)	2 parts

The first three are medicinal mushrooms. (For additional information, see "The Magic of Medicinal Mushrooms" in *Alternative Medicine*, Issue 36, July 2000.) The other ingredients are

well-known herbs that tone the organs and improve immune function. These are included to balance the energy of the formula energetically, as is done with most traditional Chinese formulations. Licorice and Salvia are included to harmonize the formula, so that it is distributed to other organs.

Lentinula edodes (LEM). LEM is an extract from the myce-lium of shiitake

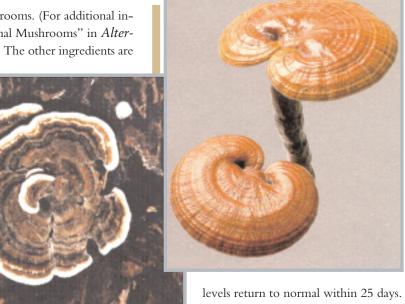
mushrooms. The well-known herbalist Christopher Hobbs studied and used LEM as a medicinal treatment. Its central ingredient is lentinan, a specific type of complex carbohydrate called a beta-glucan polysaccharide, known to have healing properties. It has the ability to induce the body to produce interferon, which may explain LEM's usefulness in treating hepatitis C.

In Japan many patents have been issued from 1972 to 1993 for products made from shiitake. These include treatments for asthma, hypertension, cancer, ulcers, acceleration of bone healing, immune regulation, antibiotics, a clotting mechanism and high cholesterol. Studies from this time period also include treatments that are antidiabetic, anti-parasitic and anti-fungal, as well as a means of protecting the body from radiation. The HCV viral strain known as type 1B, found in Japan, is the most dangerous form of the virus, and LEM mushroom extract is at the core of the Japanese treatment.

Reishi. Reishi is considered by the Taoists to be the herb of immortality. There are an impressive number of reports from China and Japan on Reishi's beneficial effect on the liver. It has a free radical scavenging effect and prevents oxidative damage.

Coriolus. The polysaccharide (complex carbohydrate) Kureha (also known as PSK), which is found in the Coriolus mushroom, has demonstrated antiviral activity and enhances stimulation of interferon production. In China it is used to cure liver ailments, including hepatitis B and C. (In Japan, PSK is also a leading treatment for cancer.)

Schizandra (fructus schisandrae chinensis). Schizandra is used in the treatment of infectious hepatitis. A study published in *Chinese*



Herbal Medicine. by Bensky and Gamble (Eastland Press, Seattle 1986), followed patients with high SGPT/ALT levels (a blood chemistry measure of liver enzymes). On average, patients with infectious hepatitis treated with schizandra had liver enzyme

levels return to normal within 25 days. No side effects were noted. The traditional use of this herb is to calm the spirit and consolidate energy.

Angelica sinensis. Mice fed a 5% preparation of Chinese angelica (Dong Quai) were found to have increased the oxygen consumption of the liver without affecting the amount of nucleic acids present. This herb has a blood-tonifying and harmonizing effect.

A Complementary Approach

Combining Western medicine's diagnostic tests with our herbal protocol, we have been able to quantify the progress of our patients and provide proof of their recovery from this serious illness. A dramatic example of recovery from end-stage is a patient with such severe ascites (abdominal swelling from free fluids, caused by liver impairment) that she referred to herself as the "Michelin woman." She was 43 years old with a brief history of teenage IV drug use. Her HCV status came to light four years earlier when she nearly bled to death from diseased esophageal veins. At that time her illness was classified as end-stage cirrhosis, and she was put on the liver transplant list. Her symptoms included extreme fatigue, mental confusion, swollen spleen, abdominal pain, osteoporosis, autoimmune connective tissue disease and vasculitis. She felt so bad that she cried much of the time.

In addition to the base protocol, we used alfalfa extract to increase platelets, a red root and milk thistle formula for the enlarged spleen, phosphatidyl serine to help brain function and unsweetened cranberry juice to clear excess ammonia. A by-product of protein digestion, ammonia levels can rise when liver function is impaired, and this in turn causes mental confusion. A low-protein

diet was recommended, and Chinese herbs were given to help improve her low energy level.

After one year, her liver enzymes reduced from AST 152/ALT 107 to AST 51/ALT 29 (normal range). Her viral load also tested as undetectable. Her M.D. ordered more sophisticated tests in which viral load was barely detectable. Her symptoms continue to improve.

While our base protocol is primarily herbal, adjunct therapy with acupuncture has many benefits. The principles of traditional Chinese medicine (TCM) in treating liver disease are outlined below.

TCM AND THE LIVER

In traditional Chinese medicine

(TCM), the liver is thought of as part of that organ system which allows energy to flow smoothly through the body, and in this way it affects all other organs. Ancient medical texts tell us that when the liver is functioning well, all the other organs are better off. *The Yellow Emperor's Classic of Internal Medicine*, an authoritative text written around 100 B.C., states: "When liver energy declines, the muscles cannot move."

This is interesting given what we know today about liver function and nutrition. Oriental medicine recognizes possible liver involvement in such diverse symptoms as headache, fatigue, irritability, aches and pains, indigestion and menstrual disorders; this is understandable when remembering how complex liver function is.

We also recognize that when the energy of the liver is impaired, certain emotional states such as anger and frustration arise. This is something I have seen often in my clinical practice. Anger and a sense of frustration can either accompany or be the cause of disharmonies of the liver, and the practitioner must determine whether the problem is from an outside source such as a pathogen, diet, alcohol or toxins, or whether it is generated from within, from the emotional landscape. Almost always in traditional oriental medicine, all of these factors need to be considered to effect a positive outcome. A treatment plan will often include lifestyle changes, dietary recommendations and possibly acupuncture and Chinese herbs.

TCM AND HEPATITIS

Signs and symptoms, rather than lab tests, are the basis for diagnosis in traditional Chinese medicine (TCM). While we also have documented quantifiable laboratory evidence of the success of our protocols, a look at the traditional approach sheds further light on the disease, its progression and how to reverse it. Note that just as Western physicians take vital

signs that include temperature, blood pressure and pulse, in tradi-

tional Chinese medicine the clinical signs include examination of the tongue, the character of the pulse and other observations. Hepatitis presents as one of or a combination of the following sign–symptom patterns:

RETENTION OF DAMP HEAT

Clinical manifestations include bright yellow skin, yellow sclera (the whites of the eyes), fullness of the chest and abdomen, nausea and vomiting, deep yellow urine, bitter taste in the mouth, sticky tongue coating and a soft rapid pulse. The treatment principle is to clear heat and eliminate damp.

INVASION OF THE SPLEEN BY DAMP

The clinical signs include epigastric discomfort, abdominal distention, dislike of oily food, anorexia, absence of thirst, yellow scanty urine, loose stool, white sticky tongue coating and slow, soft pulse. To resolve this, one would clear damp and invigorate the spleen.

STAGNATION OF LIVER CHI

Symptoms include distention and pain under the ribs, stuffiness of the chest, belching, low-grade fever, bitter taste in the mouth, thin white tongue coating and a wiry pulse. Treat by soothing the liver and regulating chi.

DISHARMONY BETWEEN THE SPLEEN AND STOMACH

This is manifested by epigastric discomfort, poor appetite, abdominal distention, loose stool, a thin sticky tongue coating and a thready pulse. This pattern is often seen in the chronic stage of hepatitis. Treat this by invigorating the spleen and harmonizing the stomach.

Remember that all toxins that we ingest must be converted by the liver. Some botanical toxins, such as certain alkaloids, may provide medicines of the future. However, certain botanicals have definitely been identified as hepatotoxic (toxic to the liver). In the presence of liver disease, it is important to learn as much as you can and get professional guidance in choosing remedies.

Contacts:



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This program is administered by the Marin AIDS Interfaith Network. Information on that program can

be obtained from MAIN at 415-455-5636.

To puchase the Hep C formula or other products, call Alchemist Lab at 877-454-HEPC (4372) or visit www.alchemistlab.com.