Herbs and the Alphabet Soup of Hepatitis

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D'Arcy Naturals' Hepo-Protect formula combines SST with milk thistle, andrographis paniculata and schisandra

Over ninety percent of chronic hepatitis sufferers in Japan, some 1.5 million people, are taking a safe, natural medicine, used by conventional physicians and proven effective in hundreds of papers and studies.

This natural medicine, however, is still unknown in the West, to the millions suffering viral hepatitis in the United States. Studies have shown that this herbal formula strengthens the immune system, reduces viral loads, and can stop the progression of chronic viral hepatitis into serious liver damage, cirrhosis and even liver cancer. This herbal formula, studied by scientists in modern Japan, is from Ancient China. The formula name is *Minor Bupleurum*, first reported in the Shan Han Lun, Discussion of Cold Induced Disorders, written between 300 B.C. and 300 A.D.

According to the Hepatitis Foundation International, the Hepatitis B and C viruses have infected 520 million people globally, 6 million in the U.S. alone, and most do not know they are infected.

This article will review the viral hepatitis "alphabet" and then review the literature on the formula and other promising liver herbs.

Hepatitis is not a single disease but is actually a term meaning "inflammation of the liver." This disease has been plaguing human beings for centuries. There are reports describing hepatitis in the literature of traditional Chinese medicine going back thousands of years. Hypocrites noted occurrences of jaundice epidemics around battlefields with the concentrated populations of soldiers and their attending unhygienic conditions. During the American Civil War, at least 70,000 soldiers fell ill with infectious hepatitis. Today science has identified an entire "alphabet soup" of hepatitis viruses: Hepatitis A, B, C, D, E, F and G.

Other viruses, (such as Cytomegalovirus and Epstein Barr) can cause hepatitis and can also activate sleeping hepatitis viruses lying dormant in liver cells. Hepatitis can also be chemically induced.

Hepatitis A (HAV), once known as infectious hepatitis, is short-term and self-limiting. HAV is the least dangerous of the hepatitis viruses, with an incubation period of 2 to 6 weeks. HAV is spread by direct contact from an infected person or through fecal infected food or water. It can be stopped with injections of gamma globulin.

Hepatitis B (HBV) is more serious and, like HCV, is known as the "silent killer." It was clinically distinguished from (HAV) in the 1930's, and has an incubation period of 6 weeks to 6 months. Fortunately there is a vaccination for HBV. Classified as a venereal disease, it can be passed by seminal fluid, vaginal secretions, contaminated blood, and blood products or via tiny cuts and abrasions, using an infected needle or even toothbrush, body piercing, dental work or childbirth. Before routine testing of the U.S. blood supply in the 1990's, HBV infected and killed thousands of people. It is 100 times more infectious than HIV, and every year

5,000 Americans die from cirrhosis and 1,000 from liver cancer caused by HBV.

Hepatitis C (HCV) is transmitted through tainted blood, sharing of needles, personal care items or transplant of infected tissue. It is not easily spread through sex. It is responsible for up to 4 million infections nationwide with 30,000 new cases and 8,000 to 10,000 deaths reported each year. HCV infection is expected to triple in the next 10 to 20 years. It is estimated that 75% of those infected will be infected for life. According to the Center for Disease Control, between 20% and 50% will go on to develop cirrhosis, (a scarring of the liver) and 20% to 30% of those will develop liver cancer.

HCV is called the hidden epidemic because it can go undetected for many years. When symptoms do appear, often the damage is already done. It could cost up to $26 billion nationwide and is the leading cause of liver transplants. The mortality rate is rapidly rising because many people were originally infected ten, twenty or even thirty years ago, mainly through transfusions before blood supply screening started in 1992. Early detection is very important. Although 15% are able to successfully fight off the virus, about 85% of those infected with HCV go on to develop liver disease. Out of that 85%, modern treatment can cure up to 40%. Globally, only 10% of those infected can afford treatment.

Hepatitis D (HDV) only thrives in the presence of HBV, worsening its symptoms. It survives and thrives off the HBV virus coating material.

Hepatitis E (HEV) is rare in the United States, confined to tropical areas after flooding, producing a similar symptom pattern as HAV.

Hepatitis F (HFV) is very rare. HFV is passed from primates to humans.

Hepatitis G (HGV) is mild and does not commonly cause serious liver damage, yet it accounts for 9% of all hepatitis infections. HGV has been recently identified as a group of three virus sub-types of HCV.

HBV and HCV are the most serious of the whole “alphabet soup” of hepatitis viruses and according to some sources, 10% of HBV and 85% of HCV can develop into chronic forms.[34] Symptoms range from asymptomatic, to mild flu-like symptoms, dark urine, light stools, jaundice, chronic fatigue, serious liver damage and even death. HCV has the ability to escape detection by our immune system and thus leads to the high chronic infection rate. Experts agree that sub-type HCV:1b leads to the most aggressive disease and is the least responsive to Interferon treatment. More severe liver disease is associated with HCV patients who abuse alcohol and have HBV or HIV infection.

Once infected, it may be many years before the virus is activated. As long as the virus remains dormant inside the liver cell, it avoids the immune system detection, yet, when activated, it can cause the immune system to attack the liver cells causing liver tissue damage. Any number of factors may set off or trigger a dormant hepatitis virus, such as a drinking binge, exposure to toxic chemicals, over dosage of prescription or over-the-counter pharmaceuticals, stress, a depleted immune system and even trans-activation (one virus activating another). Minimizing these factors also reduces the virus’ impact.

Conventional treatment in more serious cases can include steroids used to suppress the immune response from damaging and scarring the liver. HBV, HCV, and HDV are treated with interferon, a protein that is naturally produced by our bodies to fight infection. Alpha Interferon is a synthetic copy of the natural interferon, and is used for more severe cases or as a pre-emptive strike. According to Carol Turkington in her book, Hepatitis C, the Silent Epidemic, interferon treatment may only be effective in 50% of cases. It can cause flu-like symptoms and depression; it is currently the main treatment. Experts are suggesting to those who are

diagnosed early, that they start an aggressive treatment course lasting twelve to eighteen months.

Herbal Treatment of Hepatitis

There is a large body of evidence building over the last 20 years, primarily by Japanese researchers, for the use of a specific traditional Chinese herbal formula, *Minor Bupleurum*, called *Sho Saiko To* by the Japanese, for the protection of the liver. There are currently 171 papers and studies listed in a conventional medical database under the Japanese name, *Sho Saiko To* (SST) outlining its use for treatment of hepatitis in China and Japan. Robert Rister states in his book, Japanese Herbal Medicine, "Usefulness [of SST] in hepatitis treatment has been confirmed by dozens of studies in Japan, over 90% of chronic hepatitis patients [in Japan] take this formula." In another study it was estimated that 1.5 million people in Japan suffering from hepatitis were taking this formula.[6] Studies show the effectiveness of this formula, at nearly every stage of infection, to hinder and even stop the progression of the hepatitis viruses.

SST increases the immune system components that both keeps the virus from forming protein and attacks the virus directly. SST has also been shown to boost the immune system through its effects on macrophage functions. "These results suggest that SST enhances the immune response through at least two different routes, that is, through eliminating the inhibition of lymphocyte functions by prostaglandin E2 and through presenting antigen more efficiently." [22]

SST has demonstrated that it can treat viral hepatitis. In a clinical trial the efficacy of SST on 222 patients with chronic active hepatitis was studied in a double-blind, multi-center clinical study. One hundred and sixteen patients received SST in a daily oral dose of 5.4 gm for twelve weeks, followed by the same dose for a further twelve weeks. One hundred and six patients received a placebo containing 0.5 g of SST for twelve weeks, followed by a crossover to SST for a further twelve weeks. Among the liver tests, serum AST and ALT values decreased significantly with the administration of SST. The difference of the mean value between the SST group and the placebo group was significant after twelve weeks.[18]

The anti-tumor activity of this formula is well documented, especially for liver cancer, but also lung cancer and renal cell carcinomas. [2,3,4,21] One study was performed to evaluate the preventative effect of SST on liver cancer development in chronic viral hepatitis, because of the anti-tumor effects documented in experimental animals.[2,3,4] It studied 260 patients with cirrhosis over five years in control groups to determine liver cancer protection. The patients in the trial group were given SST at a daily oral dose of 7.5 gm per day in addition to the conventional drugs given to the control groups. The patients were monitored for sixty months and the cumulative incidence of liver cancer and the survival rate in the two groups were calculated. The conclusion was that SST helped to prevent the development of liver cancer in patients with viral hepatitis.[5]

SST also proves effective in preventing or stopping the progression into liver cancer for patients with cirrhosis. One double blind study of 260 HBV patients with cirrhoses of the liver, were paired together matched for age, sex, and HBV antigens. The trial group was given 7.5 gm of SST daily; the control group was given conventional medical treatment. After 34 months, SST outperformed the conventional treatment and the authors of the study concluded, "SST may prevent or delay the emergence of latent Hepatocellular cancer, in patients with cirrhosis."[29]

Analysis of this formula is very interesting; it shows the effectiveness is derived from complex molecules found in the whole herbs themselves and not in the simple chemical extracts taken from the herbs.[26]

The treatment of children with SST has shown to be especially effective in a number of studies.[13,17,26] One clinical trial concluded, "SST seemed to promote clearance of HBeAg in children with chronic HBV infection and

with sustained liver disease. SST may be a very useful drug for such patients."[17]

Another clinical trial concluded the same and identified the mechanism "by the production of gamma interferon which interferes with the virus's ability to reproduce. Not only able to promote clearance of HbeAg, this formula can prevent the progression of HCV."[26]

SST has been shown to increase the effects of prednisolone.[14,15] It showed the mild anti-inflammatory action and significantly increased the anti-inflammatory effect of prednisolone (pediaped, prelone). Bupleurum, the main ingredient of SST, has saikosides that along with other chemicals, stimulate the pituitary gland into directing the adrenal glands to produce glucocorticoids, which reduce inflammation.[32,33] Bupleurum also increases the effectiveness of glucocorticoid drugs such as prednisone. This has matched my own anecdotal experience in my practice; I always use SST to help minimize the side effects and withdrawal symptoms from prednisone.

Contraindications. The use of SST has been shown to be contra-indicated with interferon treatment as it increases the side effects of the drug. SST has been demonstrated to increase the production of the body's own natural interferon, (which explains why, it increases the side effects of the synthetic drug interferon). SST is an interferon inducer. There are some cases of HBV and HCV patients that have developed pneumonitis or pneumonia using SST in conjunction with interferon drug therapy.[1] Supervision by an M.D. is absolutely essential under these conditions.

A major anti-viral agent, SST has been shown to be useful against other viruses. In HIV studies it was shown to produce a 50% reduction in the ability of HIV to replicate itself and jumps to 80% for leukemia viruses.[30] Like *Andrographis Paniculata* mentioned later in this article, SST acts by blocking an enzyme known as reverse transcriptase, which the virus uses to translate its genetic information into a form it can use to replicate.

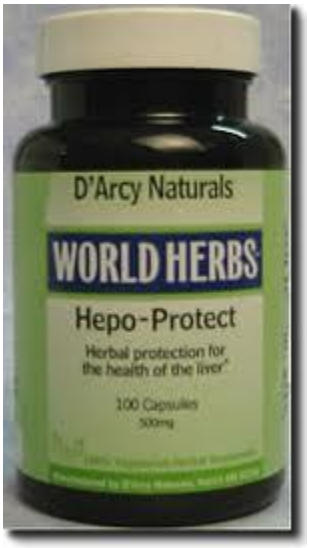
SST has also been used traditionally against the influenza virus. At a certain stage of influenza viral attack, when, according to Traditional Chinese Medicine (TCM), the pathogen is stuck in a superficial "lesser yang" level of disease stalemate. Chronic Hepatitis can also be classified by TCM and Japanese Herbal Medicine, *Kampo*, (on a deeper level) as a disease of the lesser yang level. In this scenario, the body's defenses and the invader have reached a stalemate that can last for many years. The influenza virus has proven vulnerable to SST in this lesser yang stage, where the forces of the pathogen and those of the body are equally matched.

Bupleurum is one of the main ingredients of SST and recent studies indicate that the particular species used in the SST formula makes a significant difference on the therapeutic impact of the formula. A simple and quick quantitative analysis of saikosaponins a, c and d, the major bioactive principles contained in Bupleurum species, by TLC scanner described the following results: with *Bupleurum kaoi,* the species native to Taiwan, showed that the roots, rhizomes and aerial parts (leaves and stem) have greater quantities of saikosaponins than cultivated *B. falcatum* var. *komarowi* and *B. chinense* used in many commercially available formulas. The liver protective effects of the three different Bupleurum species were evaluated using CCl4-induced toxicity in rats. The acute increase of serum transaminase (SGOT and SGPT) levels caused by CCl4 administration (3.0 ml/kg, s.c.) was dramatically reduced when treated with SST prepared with the roots of *B. kaoi*.[19]

Other promising herbs for the liver, such as schisandra, *fructus schisandrae,* are showing great promise in liver protection against viral hepatitis[9] as well as toxic chemicals.[10,12] Schisandra protects the liver against toxic chemical damage even when activated into a poison, in the liver, such as with carbon tetrachloride. There are no toxic reactions reported even at huge dosages.[11] Schisandra is a well-known Chinese herb, widely used in ancient China. During recent decades, it has been found to be effective in viral and chemical induced hepatitis and repair of the injured liver cells.[16]

Milk Thistle, *Silybum marianum*, has the active principle, silymarin, that has been demonstrated in animals to protect against various hepato-toxic substances. To determine the effect of silymarin on the outcome of patients with cirrhosis, a double blind, prospective, randomized study was performed in 170 patients with cirrhosis. Analysis of subgroups indicated that treatment was effective in patients with alcoholic cirrhosis.[25]

Andrographis, *Andrographis paniculata,* used in Chinese and Ayurvedic medicine, is another herbal rising star. Recently acclaimed for its ability to protect the liver and help the liver regenerate itself, it has the added benefit of hindering the replication of viruses, by altering cell-to-cell transmissions. [23,24] The ingredient *andrographide* is suspected of destroying the virus' communication mechanism, preventing the transmission of the virus to other cells by modifying cellular signal transmission.[28]



Hepo-Protect formula combins SST with schisandra, milk thistle and andrographis paniculata to protect the liver and for the treatment of acute or chronic hepatitis. More information is available at www.darcynaturals.com or at (508) 650-1921.

Chinese Medicine also has other suggestions to offer hepatitis sufferers:

Foods to help Hepatitis
The Chinese have identified the energetics of foods that can help hepatitis: apples, adzuki beans, barley, beet greens, cabbage, carrot, celery, corn silk, cucumber, dandelion greens, grapefruit, lotus root, millet, oranges, pears, pineapple, rice, squash, watermelon.

Substances to Avoid
Alcohol, prescription and recreational drugs, over-the-counter pharmaceuticals, coffee, chocolate, sugar, "hot" spicy, greasy, fatty and fried foods.

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