

<u>Hepatitis B</u> is liver inflammation caused by the Hepatitis B virus (HBV). The HBV is a DNA virus that replicates within the hepatocytes causing irritation, inflammation and malfunctioning of the liver which results in elevated liver enzyme levels in the blood. It is a blood-borne virus that can be spread from person to person by blood and bodily fluids through sexual intercourse, blood transfusions, or contaminated needles. Common symptoms include fatigue, nausea, loss of appetite, jaundice, abdominal pain in the URQ, dark urine or fever. Hepatitis B can be either acute or chronic. Some individuals fight off the infection within several months and become immune to the Hepatitis B virus. For other individuals, however, the infection becomes chronic and can cause liver scarring and liver cirrhosis since the liver is overtaken by the virus and is unable to function properly.

The toxicity of HBV is caused mainly by the direct action of the hepatitis B virus-X protein (HBx). HBx down-regulates mitochondrial enzymes involved in electron transport in oxidative phosphorylation which increases the level of mitochondrial ROS and lipid peroxide production. HBx is partly responsible for an approximate 10,000-fold increase in intracellular ROS upon chronic HBV infection. Increased ROS and lipid peroxidation can cause liver inflammation and more than 20 types of DNA damage which can lead to liver cirrhosis and hepatocellular carcinoma.

From a Western medicine standpoint, patients with chronic Hepatitis B infections need prescription medication for the rest of their lives. This includes antiviral medications which can have severe side effects when taken long-term. For younger patients wanting to get pregnant and cannot be on antiviral medication, interferon therapy is suggested. This form of injectable therapy lasts about 6-12 months and can cause many long-term side effects because of the extended treatment time. Side effects can include, chills, fever, vomiting, muscle pain, low WBC count, and loss of appetite.

<u>Hepatitis C</u> is liver inflammation caused by the Hepatitis C virus (HCV). The HCV is a small enveloped single-strand RNA virus that also replicates within the hepatocytes causing liver inflammation and damages the liver cells which results in elevated liver enzyme levels in the blood. Common symptoms are similar to Hepatitis B including fatigue, poor appetite, jaundice, dark urine or easily bleeding. HCV can also replicate in immune cells such as monocytes and lymphocytes which may account for the high levels of immunological disorders such as autoimmune disease in Hepatitis C patients. Persistent HCV infection may induce autoimmune diseases with high levels of autoantibodies and chronic Hepatitis C is often accompanied by autoimmune hepatitis.<sup>1</sup>

Hepatitis C causes damage to the liver mainly in the form of inflammation, which then leads to scarring or fibrosis. Hepatitis C also results in the death of liver cells due to the combination of HCV and the immune system's response to invasion by the virus. However, the immune system's response is what causes the most damage. The death of liver cells triggers the dispatching of inflammatory cells to the affected area. Inflammation leads to the enlargement of the liver (hepatomegaly) in over 60% of people infected with Hepatitis C and can cause the fibroelastic sheath (Glisson's capsule) surrounding the liver to stretch, which may be the cause of pain in the liver area.

HCV, as with most RNA viruses, exists as a viral quasispecies. The HCV species is classified into six genotypes. Each genotype has several subtypes. Subtypes are further broken down into quasispecies based on their genetic diversity. Subtypes 1a and 1b are found worldwide and cause 60% of all cases.

HCV mutates rapidly due to a high error rate on the virus RNA polymerase. The mutation rate of HCV is estimated at 10<sup>-4</sup> substitutions per site, per round of replication and is among the highest for RNA viruses including retroviruses. Its mutation rate is high enough to generate all the genetic variation found in this virus. Due to this feature and to





the high replication rate of HCV, a large number of different but closely related viral variants are continuously produced during infection. These circulate *in vivo* as a complex population commonly referred to as a quasispecies.<sup>3</sup>

The Hepatitis C virus is also the cause of some cancers such as liver cancer (hepatocellular carcinoma) and lymphomas in humans. HCV is predominantly a blood-borne virus, however, with very low risk of sexual or vertical transmission. The key groups at risk are intravenous drug users, recipients of blood products and sometimes patients on hemodialysis. HCV causes both acute and chronic infections. About 30% of individuals fight off the infection, and the condition resolves on its own; however, the vast majority (about 70%) of infected individuals will develop chronic HCV infection. Overtime, liver cirrhosis or liver cancer may occur.

Persons who have been infected with Hepatitis C may appear to clear the virus but remain infected. 40% of those with hepatitis but with both negative Hepatitis C serology and the absence of detectable viral genome in the serum have HCV in a liver biopsy. Unlike Hepatitis A and B, there is currently no vaccine to prevent Hepatitis C infection.

Current Hepatitis C treatment options depend on many factors since there are many variants of the HCV. The medication choices depend on the Hepatitis C genotype, presence of existing liver damage, other medical conditions, and prior treatments. Antiviral medications which are prescribed can help to clear the virus from the blood but also can lead to renal toxicity and failure. More importantly, they can cause liver inflammation, especially those with existing liver health issues as those with HCV have.

#### Other Viral Infections in Hep B and C Patients

Infections from Hep B and C viruses can cause severe stress to the liver which leads to reduced blood flow from the hepatic artery to the liver. This can substantially weaken the liver's innate immune function and compromises enrichment of innate immune cells such as macrophages and natural killer T cells. Therefore, co-infection by other types of systemic viruses such as cytomegalovirus is very common among Hep B and C patients.

### Wellness Recommendation

The wellness recommendation for Hepatitis B and C includes Brown and LC Balancer along with Woad and Woad-R. Brown and LC Balancer help repair liver damage caused by the virus as well as enhances the production of liver leukocytes to improve liver's immune function and clear out the virus. Woad helps clear Evil Qi and heat in the blood. It helps clear the extracellular viruses that have not entered the host cells by enhancing the adaptive immunities involving the antibodies and complementary system. To further support the liver, Woad-R may also be required to clear the virus that is in the extracellular space of the liver by removing the Evil Qi from the liver. Woad-R also helps clear liver viral infections caused by other systemic viruses such as cytomegalovirus that also affect the liver. Qi Booster is also recommended for patients who have severe fatigue and/or compromised immune function. Levera is also recommended, if the patient's liver is inflamed with increased serum triglyceride levels

Cassia Seeds, an herbal ingredient in Brown, has been shown to improve the chronic low-grade inflammatory state in liver disease patients by promoting anti-inflammatory production, and regulating immune cell differentiation.<sup>2</sup> American Ginseng, an herbal ingredient in LB Balancer, has been shown to decrease the viral titers in HCV (hepatitis C virus) patients, supporting powerful therapeutic effects against HCV.<sup>4</sup> Levera helps reduce liver inflammation and clear out proinflammatory cytokines. Gardenia, an herbal ingredient in Levera, has been shown to decrease levels of TNF-alpha within liver tissue as well as decrease AST and ALT levels.<sup>5</sup> If patients experience increased levels of fatigue, Xcel is also recommended in order to help the kidneys secrete the wastes more effectively.

Patients can experience symptom improvement within 2 weeks and 3 months of the protocol is required to achieve significant improvement. Hepatitis B and C viral counts and liver enzyme levels can be improved within the first 6 weeks. If patients have developed scarring or fibrotic tissue in the liver, Cirrhonin is also required. Depending on the severity of the fibrotic condition, up to 3 months of protocol is required for significant improvement.

# Selected Case Studies

### Case 1: Successful Reduction of Viral Load in Hepatitis C Patient and Normalized Liver Enzymes Stephen Warren, DC, OK

A Vietnam veteran had been diagnosed with hepatitis C. The disease had not been identified for many years. As a result, the patient had incurred substantial liver damage. His liver deficiencies had reached chronic character with potential for soon liver failure. In addition, the patient suffered from several other symptoms such as trauma and effects from Agent Orange exposure. Due to the critical liver condition, medical doctors had recommended to start an interferon treatment. One shot per month for a period of one year was to be applied. The treatment has a number of serious side effects and is considered similar to the nature of chemotherapy. Side effects such as potential suicide and depression are quite expected. As few as 10 to 20% of the patients are expected to get better. In most cases the side effects result in an overall decline of health.

Comparing the treatment options including expected side effects the patient decided to try an herbal regimen with Traditional Chinese Medicine from Wei Laboratories. The program comprised a six-week protocol with Wei Laboratories Brown and LC Balancer. Upon completion and in preparation for the interferon treatment recommended by the medical doctor the patient did another blood test. The results were amazing. Liver enzymes turned out to be almost normal and the viral load appeared to be almost non-existent. The results had been so remarkable that the patient's medical doctor did not trust them and still suggested an interferon treatment. However, based on the results from the blood test the patient turned down the advice. As a preventative measure, the six-week herbal program with Wei Laboratories Brown and LC Balancer was repeated one year after the initial success. The annual blood test afterwards confirmed the positive results seen the first time. This time the liver enzymes turned out to be completely normal and the viral load was identified to be zero. Three years later another preventative 6-week protocol had been applied. The blood work afterwards turned out to be essentially normal. The patient's liver has shown proper health ever since.

Case 2: Successful Resolution of Hepatitis C Janet Beach, RN, MN

A 62-year-old female patient contracted Hepatitis C and has had the condition for a long time. She had stopped working because of her health issues and had been on partial disability. Janet had recommended a 3-month protocol of Brown and LC Balancer. The use of Brown helps repair liver damage and restore liver health, and the use of LC Balancer enhances microcirculation. Before starting the protocol, the patient reported that her viral load was 18.9 million.

During the first month, her energy level had improved significantly. She had been able to walk up the stairs without losing her breath, attend mass for the first time in a while, and wake up earlier. During her second month of treatment, her blood work had shown that her viral load was cut by two-thirds to 6.2 million. She had felt fatigued, and Janet had recommended the addition of Xcel at a modified dose.

As the patient's liver function improved, the buildup of metabolic waste in the blood overwhelmed the kidneys causing fatigue. Xcel had been recommended in order to help the kidneys secrete the wastes more effectively. At the end of the third month, the blood work had shown that the patient was negative for Hepatitis C, and any signs of the virus was undetected. For sustained results, Janet then recommended a continuation of Xcel, Brown, and LC Balancer at a modified dose as well as a full dose of Cirrhonin in order to break down any fibrotic tissue in the liver that resulted from Hepatitis C. The patient was very impressed with her blood work and was very happy with the results.

<u>Case 3: Successful Treatment for Hepatitis C</u> Donna F. Smith, ND, PhD, CCN, TX Brown Juice and LC Balancer Reduced Virus Count for Hepatitis C Patient. This 49-year-old female presented to Dr. Smith with a medical diagnosis of Hepatitis C after several decades of alcohol and illegal drug and other substance abuse. Her medical prognosis was 6-12 months to live. She was extremely exhausted and had multiple other health challenges. Dr. Smith provided a clinical nutrition analysis (or interpretation) of her general blood chemistries and Hepatitis C laboratory reports from her physician, and with financial aid from her parents, designed and dispensed a therapeutic whole food supplement program and dietary plan to detoxify (internal biological cleansing) and assist her body in repairing and regenerating new, healthy liver cells.

Dr. Smith also dispensed Brown and LC Balancer from Wei Laboratories and in only six (6) weeks, her viral blood count dropped from 6.5 million to 2.5 million.

It is now three years since this patient presented herself to Dr. Smith, she is alive and grateful to Dr. Smith and Wei Laboratories for saving her life.

# Case 4: Successful Healing of Complex Set of Symptoms

Jacklin Arastouzadeh, B.A UCLA, LA.c, Dipl. Ac, N.B.A.O., Qualified Medical Evaluator, Former UCLA Research Acupuncturist, CA

A long-term patient (patient for ten years now), age 55 and male, came for first time treatment in 2001. He had been diagnosed with Hepatitis B, thoracic arthritis, high blood pressure, high cholesterol, diverticulitis, allergies, prostate problems, hemorrhoids, and shoulder problems. The patient considered himself dying at that point.

A comprehensive protocol composed of 30 sessions for a total length of eight months (one session per week) was prescribed. It was composed of acupuncture and herbal treatment including Wei Laboratories' Brown and LC Balancer and additional self-made herbs.

After six months, the protocol had eliminated all symptoms except for the thoracic arthritis. A preventive maintenance schedule (once a week) has been applied ever since. It just needed the right herbal mix and acupuncture to cure a complex set of symptoms. The patient has been loyal for ten years now.

# References:

- 1. Sugiura A, Wada S, Mori H, Kimura T, Matsuda Y, Tanaka N, Tanaka E, Kiyosawa K: Successful Treatment for Chronic Hepatitis C-Autoimmune Hepatitis Overlap Syndrome due to Daclatasvir and Asunaprevir. Case Rep Gastroenterol 2017;11:305-311. doi: 10.1159/000475752
- Luo H, Wu H, Wang L, Xiao S, Lu Y, Liu C, Yu X, Zhang X, Wang Z, Tang L. Hepatoprotective effects of Cassiae Semen on mice with non-alcoholic fatty liver disease based on gut microbiota. Commun Biol. 2021 Dec 3;4(1):1357. doi: 10.1038/s42003-021-02883-8. PMID: 34862475; PMCID: PMC8642482.
- 3. Echeverría, N., Moratorio, G., Cristina, J., & Moreno, P. (2015). Hepatitis C virus genetic variability and evolution. World journal of hepatology, 7(6), 831–845. https://doi.org/10.4254/wjh.v7.i6.831
- Huu Tung, N., Uto, T., Morinaga, O., Kim, Y. H., & Shoyama, Y. (2012). Pharmacological effects of ginseng on liver functions and diseases: a minireview. Evidence-based complementary and alternative medicine : eCAM, 2012, 173297. https://doi.org/10.1155/2012/173297
- 5. Chen SD, Li J, Zhou HH, Lin MT, Liu YH, Zhang YM, Zhao ZX, Li GH, Liu J. Study on effects of zhi zi (fructus gardeniae) on non-alcoholic fatty liver disease in the rat. J Tradit Chin Med. 2012 Mar;32(1):82-6. doi: 10.1016/s0254-6272(12)60037-5. PMID: 22594108.