



## **TAKING TREATMENT MEASURES IN LIVER PATIENTS**

Ashuraliyeva G.K.

Andijan State Medical Institute, Uzbekistan

<b>A B S T R A C T</b>	<b>K E Y W O R D S</b>
<p>Natural medicine is a system of therapy that administers natural agents and their derivatives to treat human diseases. This medicine has been used to treat many kinds of human diseases for thousands of years. The treatment protocols of natural medicine are integrative in nature, and are required to utilize the most appropriate therapies to address the needs of the individual patient. Because of the relative convenience, safety and efficacy, natural medicine is now increasing worldwide. Naturopathic doctors are licensed in many areas of the world and regulated partly by law in these areas, which is quite different from various other forms of complementary and alternative medicine. Liver diseases, such as hepatitis, liver cirrhosis and liver carcinoma, are serious health problems worldwide. Nearly half of the natural agents used in treatment of liver diseases today are natural products and their derivatives. Although natural medicine is beneficial and safe, physicians should pay close attention to the potential side-effects of the naturopathic agents, which lead to liver injury, interstitial pneumonia and acute respiratory failure. Therefore, when administrating naturopathic protocols to patients for the treatment of liver diseases, we should try our best to prevent and avoid as much as possible the negative impact of these medicines. This article highlights the current practice and recommended improvement of natural medicines in the treatment of liver diseases and gives some specific examples to emphasize the prevention and management of adverse reactions of the natural agents and suggests that natural medicine should be cautiously used to treat liver problems.</p>	<p>Caution, Natural medicine, Herb, Natural nutraceutical, Liver disease, Adverse reactions</p>

Natural medicine is a system of therapy in which the practice of medicine relies on natural agents and their derivatives to treat human diseases[1,2]. It is also defined as a practice of diagnosis and prevention of human sickness[3]. This medicine has been used for thousands of years in the treatment of many kinds of human diseases[4-6]. Natural medicine contains many complementary and alternative methods in the prevention and treatment of diseases[7]. Agents used in naturopathy must exist in nature, with no chemical additives, and have undergone no or very little processing, such as herbs, nutrients, diet supplements, *etc.* Both naive healthcare workers and the general public appreciate the use of natural medication[8]. Unlike various other forms of complementary and alternative medicine, natural medicine is regulated in part by law. And, naturopathic doctors are now licensed in many regions of the North American continent. They have offered patient-centered care, more accessibly

discounted care and more time for consulting, and more and more patients prefer to seek healthcare from them[7,8]. Nutraceuticals are used as one of the naturopathic approaches to treat human diseases. The liver is the largest internal digestive organ of our body, which is indispensable in many essential physiologic processes and vulnerable to be impaired by a wide variety of factors, such as toxins, microorganisms, metabolic products, circulatory materials and neoformations[9]. There are many types of liver diseases that result from different causes, such as viral hepatitis, alcohol abuse and non-alcoholic fatty liver disease[10]. Recent research on functional foods such as nutraceuticals showed that many natural agents exert protective and therapeutic effects on the liver, and some of the other herbal and nutritional supplements also have mechanisms of action that make them beneficial to the liver[11].

Naturopathy is now increasing worldwide and gives merit to the diseased liver in a natural manner, showing effective and curative action for several liver diseases[2,3,7,12]. Knowledge about correct eating and lifestyle can be integrated into the everyday practice of managing liver problems[11,13]. The aim of natural medicine is to treat the cause of a disease rather than just the symptoms, like allopathic medicine often does. Naturopathy also utilizes evidence-based medicine and modern scientific research to combine conventional and complementary and alternative medicine to treat the diseases. Naturopathy follows some principles which underlie and are determined by its practice, such as relying on the healing power of nature, finding the root causes of diseases, treating the whole person, personalization, prevention, intent to do no harm, and the doctor serving as teacher for patient education[3,14]. Most important of all, these medicines should be given only by physicians (*i.e.*, naturopathic doctors) who are licensed and certified, and who keep in mind good medical ethics and a sense of responsibility. If these rules are not followed, even those natural agents which are claimed to have hepatoprotective effects can also cause serious adverse drug reactions.

This article is essentially about natural medications, natural herbal medicines, food and natural nutraceuticals rather than prescribed medications of the liver, and highlights the current practice and recommended improvement of some natural medicines in the treatment of liver diseases; it also discusses the side effects of natural agents for liver disease and suggests that we should pay close attention to such and apply them cautiously.

In both ancient western medicine and traditional oriental medicine, herbs have been used for centuries for the treatment of liver diseases[4,6,9]. In the western world, Avicenna, who was one of the most famous physicians of the old era, authored *The Canon of Medicine*. In the Canon, Avicenna introduced many hepatoprotective plants and compound drugs, and some formulas that have the effect of treatment of liver diseases[9].

Chinese herbal medicine is based on clinical experience and practice, and has been established over thousands of years[4]. The formation of prescriptions with combination herbal formulas has experienced a long history. In a formula, the selection of individual herbs must be strictly guided by the theory of traditional Chinese medicine, and must highlight the overall concept of personalized treatment[15]. Now, the efficacy and safety of a number of herbal products in the treatment of liver diseases have been demonstrated by correlated clinical studies[9].

Sho-saiko-to, also known as Xiao-Chai-Hu-Tang and Minor Bupleurum Formula in Chinese, is commonly used to treat chronic hepatitis and is also effective for liver cirrhosis. This herbal medicine also has the effect of preventing development of hepatocellular carcinoma[4,15]. It is the first herbal drug approved by the Food and Drug Administration (FDA)[5]. Approximately 1500 years ago, this

herbal drug was introduced into Japan from China as an oriental classical medicine, and it used to be the most representative agent in Kampo medicine (traditional Japanese medicine). Here the word “Kampo” stands for “Han method”, coming from a culture source in the Han era (from 206 before Christ to 220 Anno Domini) of China[16].

Various clinical trials have shown that this herb drug can protect against the development of hepatocellular carcinoma in patients with cirrhosis, and some basic science studies have demonstrated that it also could enhance liver function and reduce hepatocyte necrosis. Although the therapeutic efficacy of Sho-saiko-to has been well studied and the formula is widely used in the treatment of liver diseases, the mechanism by which the formula protects hepatocytes against hepatic fibrosis and carcinoma remains unclear[15]. In 1994, on the basis of large amount of studies, the Ministry of Health and Welfare of Japan approved the use of this Kampo in enhancing liver health and listed it in Japanese national formulary[5,16]. Since then, Sho-saiko-to has become a widely used ethical drug in the treatment of hepatitis and liver cirrhosis in Japan[6,16].

At one time, in this country, Sho-saiko-to had been widely prescribed to patients with all types of hepatitis for long-term treatment[15]. This led to the spectacular scenario that over 1.5 million hepatitis patients consumed this traditional Chinese herbal formula in Japan[6,16]. Unfortunately, the long-term consumption of Sho-saiko-to, resulted in some severe adverse effects, such as interstitial pneumonia and acute respiratory failure. In March 1996, the media disclosed that in the past 2 years after this Kampo was approved in Japan, 88 hepatitis patients developed interstitial pneumonitis, including 10 deaths resulting from acute respiratory failure, due to taking of this drug[15].

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