

Herbal Treatments for Hepatitis

By Andrew Pengelly

Introduction

Hepatitis refers to inflammation of the liver, and is usually but not always the result of a virus. Most of the publicity we hear these days concerns the spread of Hepatitis C. In fact hepatitis can be caused by alcohol and chemicals as well as many different viruses. Most of the cases of viral hepatitis in Australia are classified as types A, B or C. Types A and B were discovered over 20 years ago but type C (HVC) was discovered as recently as 1988. HVC is now considered to be the most prevalent type in Australia. Over 1500 cases have been notified in the Hunter Valley alone, where it is 10 times more prevalent than the HIV virus. There are at least 6 known strains of HVC and a mixture of strains may occur in an infected person.

While it is known that HVC is spread by blood, through such agents as hypodermic needles, blood transfusions (before 1990) and through cuts and scratches, almost half infected patients don't know the source of the infection. The disease is further complicated since carriers can take up to 20 years before acquiring liver damage, and many cases remain symptomless. In fact cases of clinically acute hepatitis are relatively rare. The long duration between infection and illness represents an opportunity for the individual to seek alternative or complementary treatments, and to adopt lifestyle and dietary changes which will enhance liver performance and overall health status.

Whatever the cause of the hepatitis its treatment will follow similar principles, whichever system of medicine is used. In many Asian countries there have been treatments available within their traditional healing systems for centuries. The Chinese (T.C.M.) and Indian (Ayurvedic) pharmacopoeias contain numerous references to specific medicines and formulas, usually used in conjunction with other techniques such as acupuncture and dietary therapy. Presently a clinical trial is underway using a Chinese herbal formula with HVC patients at the John Hunter Hospital, Newcastle, under its director of gastroenterology Professor Bob Batey. The results are eagerly awaited. When it comes to western medicine there is very little on offer for hepatitis sufferers, apart from blood tests and biopsies. The only treatment available is interferon, which is very expensive (up to \$5000 for a course), ineffective in many cases, and has possible side effects including headaches, depression and flu-like symptoms.

This article reviews the treatment of hepatitis using western, Chinese and Ayurvedic herbs, and offers some dietary advice and sources of support and information about this much feared and misunderstood condition.

PRINCIPLES FOR TREATMENT OF LIVER DISORDERS

The liver is clearly one of the largest and most important organs in our bodies, and it is not surprising therefore that inflammation of the organ can lead to numerous unpleasant symptoms and loss of vitality. In the long term it can cause liver cirrhosis and death. However most carriers of the disease will experience less severe symptoms including pain around the liver, nausea, anorexia and fatigue.

Digestion of fats is impaired and alcohol cannot be tolerated. The first indication is often jaundiced skin and dark urine- these signs can be confirmed by a blood test that measures levels of the enzyme ALT (alanine aminotransferase) which are elevated in acute hepatitis, but are often normal in chronic cases. Blood tests also reveal the presence of antibodies to specific viruses. Any person suspecting they may have hepatitis should immediately seek a medical diagnosis- the earlier the detection of the disease the more successful subsequent treatment is likely to be.

The presence of blood abnormalities, ie. raised liver enzymes and presence of viral anti-bodies, point to two ways in which herbal treatments can be of assistance. Firstly there are a number of herbal remedies which protect liver cells from damage by poisons and viruses, and there are ample published reports of animal studies and clinical trials which have demonstrated an ability of a herb to lower levels of liver enzymes (including ALT) in affected individuals. Some of these studies are listed in the bibliography. A medicine with the ability to protect liver cells in this way is referred to as a hepatoprotective. In a recent article in the Australian Journal of Medical Herbalism (email: ajmh.hunterlink.net.au) I identified 26 common herbs for which hepatoprotective properties have been demonstrated in controlled studies.

The second means by which herbal remedies can be of help is in supporting the immune systems efforts to fight off the virus. In some cases (eg. Phyllanthus) specific antiviral properties have been demonstrated. In other cases (eg. Echinacea) the action is non-specific and involves a boost to the whole immune system.

It must be pointed out that herbal treatments are not designed for acute stages of hepatitis. In this case bed rest and low fat diet, along with gentle herbal diaphoretics such as elderflowers (*Sambucus nigra*) and catnip (*Nepeta cataria*) are the limit of treatment recommended. The more widespread and longer lasting chronic stages of hepatitis lend themselves to treatments with herbal remedies and other natural therapies. Herbalists believe strongly in the need for bitter compounds as foods and medicines in order to stimulate production of gastric juices and bile from the liver. Herbs which stimulate bile flow are known as cholagogues, while those that stimulate excretion of bile from the gall bladder are known as cholagogues. Many herbs have both properties and these are extremely useful in correcting digestive disorders in general, and for helping detoxify the liver in particular. Herbs with these properties include gentian (*Gentiana lutea*), wormwood (*Artemisia absinthium*) and horehound (*Marrubium vulgare*). Traditional compounds such as the well-known Swedish Bitters have similar effects. I have found the use of herbal decoctions to be of great assistance in hepatitis cases. Although less concentrated than fluid extracts and tinctures they have the advantage of being free of alcoholic solvents, an important consideration in any liver disorder. Some people will object to the taste, however the bitterness is an important aspect of the treatment as noted above. Ingestion of herbal tablets and capsules does not give this effect.

DIETARY PRINCIPLES

There is no doubting the importance of low fat diets for hepatitis sufferers. One of the main roles of bile (which the liver manufactures) is to break down fats so the body can absorb them, as well as to convert fat soluble toxins and wastes into water soluble compounds the body can eliminate. These functions are severely impaired when the liver is inflamed so that avoidance of fatty foods is a way of resting the liver. Foods to be avoided or taken in moderation are full fat dairy products, fried foods, red meats and vegetable oils. A dessertspoon of olive oil on a daily basis can be of benefit so long as it is

well tolerated. Its digestibility is assisted by combining with lemon juice. Protein intake on the other hand is necessary to assist the liver in the process of cell regeneration. White meats (fish and chicken) are preferred to red meats for their lower fat content, while vegetable proteins are best taken in combinations of pulses (beans, peas, lentils, tofu) with wholegrains such as rice, wheat and barley.

Just as bitter herbs are prescribed to correct liver sluggishness, so are bitter foods added to the diet to improve digestive function. Wild greens such as dandelion, plantain and dock leaves can be added to meals and sandwiches, or cultivated greens such as chicory and endive. In traditional Asian systems of healing there is also emphasis placed on balancing the five tastes- sweet, salty, sour, bitter and pungent (hot). It is unwise to have an excess or deficiency of these flavours in the diet. There are also several foods and spices which are known to have hepatoprotective properties. These include the globe artichoke which can be easily cultivated, both for their leaves which are used in medicines, and their edible and delicious hearts. Spices containing hepatoprotective compounds are turmeric, garlic and black pepper.

HERBAL REMEDIES FOR HEPATITIS

St. Mary's Thistle (*Silybum marianum*)

Silybum marianum, milk thistle

Also known as milk thistle and variegated thistle, it is a common weed of pastures in Eastern Australia as well as in Europe and North America. It is regarded as the standard amongst hepatoprotective herbs and remains the most well studied (up to 50 studies and clinical trials).

Constituents:

Flavonolignans. These are unusual polyphenolic compounds referred to collectively as silymarin.

Actions and use:

Early studies conducted by Vogel and others demonstrated the dual effect of the flavonolignans from *Silybum* on the liver, ie. a membrane stabilizing effect (protecting liver cells from destruction from toxins) via anti-oxidant action, and protein synthesis enhancing effect, whereby the protected cells act as regeneration centres for new cells. The studies on silymarin conclusively show its effectiveness in protecting the liver against a wide range of toxins, from carbon tetrachloride to ethanol. It even prevents poisoning from the deadly Amanita or death cap mushroom if administered quickly enough. Thistle seed preparations are ideal for chronic and post-acute stages of hepatitis, rapidly bringing an improvement in appetite and well-being. It is also used in fatty degeneration and even cirrhosis of the liver. The seeds can be gathered (use gloves!) and made into decoctions, or ground up and used quite safely as foods. Avoid gathering in areas where chemical sprays are used.

Dandelion (*Taraxacum officinalis*)

This is one of the most well known herbs and universal weed. Dandelion has a long history of use for liver ailments, and its nutrient content is outstanding. While the leaves tend to act as potent diuretics it is the roots that are used specifically to promote bile and restore liver function.

Constituents:

Vitamins- esp. beta carotene (vit.A) and ascorbic acid.; minerals including potassium and calcium; inulin and pectin; sterols.

Actions and use:

Dandelion is classed as a choleric, cholagogue, diuretic and mild laxative. It increases appetite and improves digestion. Its alkalising effect is beneficial in all detoxification treatments. The dried roots can be roasted and taken instead of coffee. However unroasted roots are more therapeutic. They can be taken in decoction form. Fresh juice of leaves and roots can be taken in 5 ml doses. This is the most bitter preparation.

Artichoke (*Cynara scolymus*)

Globe artichoke is a popular food originating in Europe which can be easily cultivated in Australia. It has a long history of use as a bitter digestive herb and is a major remedy for liver and gall bladder disorders. It is the leaf that contains these properties.

Constituents:

Cynarin and other phenolic acids; sesquiterpene lactones; flavonoids; inulin. Minerals, vitamins and enzymes.

Actions and use:

Choleric; digestive tonic; diuretic; hypocholesterolemic; hepatoprotective. A safe and reliable herb for all liver disturbances including hepatitis. Helps lower cholesterol (made in the liver) and assists weight reduction. It can be made into a leaf decoction and take alone or in combination with the above two remedies. Artichoke, St.Mary's thistle and dandelion all belong to the Asteraceae family and work well in combination.

Schizandra (*Schizandra sinensis*)

The dried fruits are derived from an aromatic, woody vine that grows in China and north-east Asia. It is a member of the Magnolia family. The fruits are sour tasting, subsequently stimulating bile production.

Constituents:

Lignans known as schizandrins. Also contains essential oil, fatty oil and mucilage.

Actions and use:

Tonic; astringent; sedative; hepatoprotective. Studies show it decreases liver enzymes rapidly in various forms of hepatitis. In mice it protects liver cells from toxins and viruses, and promotes liver protein synthesis. Schizandra is beneficial for insomnia, memory loss and vision impairment. Chinese herbalists make a decoction of the dried berries, though they are sometimes eaten. The herb is generally taken as part of a specific formula.

Reishi Mushroom (*Ganoderma lucidum*)

This is a polypore mushroom known in China as Ling-Zhi. It is rated as one of the greatest of all medicines, even rivalling the legendary ginseng. The wild fungus is now hard to find, but extensive cultivation occurs in many Asian countries so it is readily available though quite expensive.

Constituents:

Triterpenes including ganoderic acid; polysaccharides; organic germanium; adenosine.

Actions and use:

Antiviral; antioxidant; antitumor; immuno-stimulant; hypoglycaemic; cardiogenic; anti-inflammatory. Hepatoprotective action in mice. Hepatitis patients show improved symptoms and less tiredness in clinical trials. In China it is frequently used for chronic hepatitis. It can be obtained in the dried form or in tablets. Daily doses range between 2 and 10g. This herb should be taken under the supervision of a suitably qualified practitioner.

Phyllanthus (*Phyllanthus amarus*, *P.gastroemii*)

Phyllanthus are low shrubs common across southern Asia and Australia. In parts of India the herb is renowned for its success in treating hepatitis and jaundice. It has achieved international status since the publication of a clinical trial with hepatitis B(HVB) patients.

Constituents:

Ellagitannins including geraniin; lignans- phyllanthin; flavanoids; alkaloids.

Actions and use:

Astringent; diuretic; cholagogue; antiviral; hepatoprotective. Direct antiviral effects have been demonstrated in human and animal HVB studies, which could be measured by a reduction in the virus surface antigen. Several Australian species have also shown antiviral properties in animal studies on HVB but no clinical data is available. In India fresh roots are considered the most effective for jaundice. Australian use is restricted to prescription by medical herbalists.

Liquorice (*Glycyrrhiza glabra*).

One of the most widely used herbs throughout the world, liquorice is regarded by herbalists as a harmoniser or balancing agent. It certainly improves the flavour of herbal compounds but its properties extend much further than flavouring.

Constituents:

Glycyrrhizin, a triterpenoid saponin; isoflavones

Actions and use:

Demulcent; expectorant; antiulcer; tonic; antiviral; antiinflammatory; hepatoprotective. Chinese teaching hospitals found its effective rate in treatments of chronic HVB over 70%. The herb has a mineralcorticoid effect and can cause oedema and hypertension in some people. The popular liquorice stick candies are of little use therapeutically, since the percentage of liquorice is small while the sugar content is high. Pure liquorice root can be obtained in bulk, it has a distinct yellow colour due to its flavonoid content. Manufacturers use thick liquorice concentrates which are included into a wide range of products. Liquorice should not be used over long times unless under supervision of a practitioner.

FURTHER INFORMATION AND ASSISTANCE (for Australians)

This list by no means covers all herbs which are used in hepatitis, a second group will be covered in a future edition. For those wishing to take a course of herbal treatments it is important that a qualified herbalist be contacted. A list of those in your area can be obtained by contacting the National Herbalists Association of Australia at: NHAA, P.O. Box 61, Broadway 2007. Ph. (02) 211 6437.

Email: nhaa@real.com.au

For general information and support there are a number of support groups, mainly concerned with hepatitis C. Some contact phone numbers are: Newcastle (049) 47 1206 ; Muswellbrook (065) 43 2677.

The Hepatitis C Council of NSW is a non-profit community organization providing information to people and support groups dealing with HVC. Contact them at: 345 Crown St, Surry Hills 2010. Ph. (02) 332 1599. Support Line 1 800 803 990.

The Hep.C council and most support groups are not opposed to patients using herbal or other complementary therapies, and in some cases encourage it- the proviso being the patient is simultaneously under medical supervision

Andrew Pengelly is author of *The Constituents of Medicinal Plants*.

BIBLIOGRAPHY

- Frawley, D. & Lad, V. *The Yoga of Herbs, an Ayurvedic guide to herbal medicine*. Lotus Press, Santa Fe [1986].
- Hirosho Hikino. Chinese medicinal plants used against hepatitis. In [H.M.Chang et al. eds.] *Advances in Chinese Medicinal Materials Research*. World Scientific Publ.Co., Singapore [1985].
- Hobbs, Christopher. *Foundations of health. The liver and digestive herbal*. Botanica Press, California [1992].
- Hobbs, Christopher. *Milk thistle: the liver herb*. Botanica Press, California [1992].
- Jones, Kenneth. *Reishei. Ancient herb for modern times*. Sylvan Press, U.S.A
- Keys, John. *Chinese Herbs. Their botany, chemistry and pharmacodynamics*. Charles Tuttle Co, U.S.A. [1976].
- Murray, M. & Pizzorno, J. *Encyclopaedia of Natural Medicine*, Macdonald & Co.Ltd., London [1990].
- Pengelly, Andrew. Assessment of hepatoprotective remedies. *Australian Journal of Medical Herbalism* Vol. 7 pp. 17-20. [1995]
- Pengelly, Andrew. Herbal feature- St.Mary's Thistle. *Herbal Thymes* Vol. 6 pp.14-18 [1994]. Globe artichoke Vol. 5 pp. 5-8 [1993].
- Shead, A. et al. Effects of Phyllanthus plant extracts on duck hepatitis B virus in vitro and in vivo. *Antiviral Research* Vol.18 pp.127-138 [1992].
- Vailati, A. et al. Randomized open study of the dose-effect relationship of a short course of (a Silybum marianum extract) in patients with viral or alcoholic hepatitis. *Fitoterapia* Vol. LXIV pp. 219-228 [1993].
- Weiss, R.F. *Herbal Medicine*. Beaconsfield Pub. Ltd. U.K. [1988].
- Zhou Qingjun. Chinese medicinal herbs in the treatment of viral hepatitis. In [H.M.Chang et al. eds.] *Advances in Chinese Medicinal Materials Research*. World Scientific Publ.Co., Singapore [1985].