

# LIVER TOXICITY AND HERBAL MEDICINE

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In the last few months there have been three letters in The Lancet, follow-up articles in most of the national newspapers including The Times and The Sunday Times, and discussions on the Jimmy Young Show on the toxicity of herbal medicines and a potential link with liver fatality. Subsequently, rumours have been spreading as to inherent dangers in herbal prescriptions and possible restrictions to practice. Jackie Young reviewed the reports to date and interviewed Richard Blackwell, President of the Register for Chinese Medicine and Michael McIntyre, President of the National Institute of Medical Herbalists to establish the facts and clarify the precautions that are now being advised.

*Q. Have there been any actual fatalities linked to Chinese herbs?*

The Lancet, Vol. 340, Sept 12th 1992 carried letters which described the case of a 68 year old woman in France who self-prescribed a preparation called 'Tealine' for weight reduction which contained 'Wild Germander' (the proper name for this herb should have been 'Wall Germander'). She later died of hepatic failure. The other report is of a 28 year old woman in the UK with a history of eczema who had been prescribed 2 courses of Chinese herbs. 3-5 months after the first course and 2-3 weeks after the second she developed hepatitis and was admitted to hospital with jaundice. On the second admission this developed into liver failure and the patient subsequently died, despite emergency liver transplantation. Other reports have quoted reversible liver enzyme changes in a small number of children and adults who had been prescribed Chinese herbs for skin conditions.

*Q: What is the evidence that these reported fatalities and abnormalities were due to Chinese herbs?*

The medical reports on these cases, and the National Poisons Unit at Guy's Hospital, London, which is carrying out ongoing investigations on such cases, have all implied that the herbs were responsible. However, there is, to date, no conclusive proof of this. Several important facts need to be considered:

1. In all cases the exact duration of consumption and dosage of the herbs is unknown.

2. There is scant information about the patient's prior consumption of allopathic medicines for skin conditions. Malcolm Rustin and David Atherton, of the Department of Dermatology, Royal Free Hospital, London who are carrying out trials on the efficacy of Chinese herbs for skin conditions, point out in their reply in the Lancet that certain Western drugs routinely prescribed for skin problems, such as Cyclosporin, themselves have

a known potential for toxicity. Given that many patients only seek out Chinese herbs after long-term allopathic treatment has proved ineffective, it is possible that liver toxicity may have been due to prior use of Western drugs, rather than the herbs.

3. There is also some evidence to suggest that people with chronic skin problems may have a predisposition for liver enzyme abnormalities regardless of consumption of Chinese herbs. To investigate this further, Rustin and Atherton are now carrying out liver function tests on children with severe atopic eczema who have been both treated or untreated with Chinese herbs.

4. Subhuti Dharmananda, Ph. D., Director of the Institute of Traditional Medicine, Portland, U. S. A., has studied the list of ingredients of the prescription taken by the 28 year old woman who died, which was analysed at Kew. All but one of the ingredients are known Chinese herbs. Four are commonly used and known to be non-hepatotoxic: Rehmannia (*F. glutinosa*) (Sheng Di Huang), Peony (*Paeonia species*, probably *P. suffruticosa*) (Mu Dan Pi), Licorice (*Glycyrrhiza species*, probably *G. uralensis*) (Gan Cao), Lophatherum (*L. species*, probably *L. gracile*) (Dan Zhu Ye).

One herb *Eurysolen gracilis* cannot be identified and does not appear to be a Chinese herb at all. Either this has been mis-identified, [it could have been *Schizonepeta tenuifolia* (Jing Jie)], or else it may have been a suspect herb substitution. This is currently being investigated by the Register of Chinese Herbal Medicine (RCHM). Another identified herb, *Dictamnus D. dasycarpus* (Bai Xian Pi) is commonly used in Chinese herbal teas and is unlikely to be problematical although it might, in very rare cases, cause allergic hepatitis.

The two remaining herbs, *Cocculus trilobus* (Guang Fang Ji) and *Potentilla* (Bai Tou Weng) may have a potential for toxicity if poor source material or improper preparation has been used. This is therefore a strong argument for the use of qualified, commercial suppliers who can guarantee high quality herbs. However, the *Potentilla* (Bai Tou Weng) may itself have been misidentified and could have been *Lithospermi seu Arnebiae Radix* (Zi Cao). This is also being investigated.

The above represents a provisional identification of the herbs based on the Kew report and comments by the RCHM and NIMH. The latter two associations are also now analysing a sample of the herbal prescription themselves and investigating the case notes of the woman who died to establish if there may have been other factors involved in her death. It has been said that this woman was of Indian origin and had recently returned

from a trip to India. It is therefore possible that she may have taken other medication while there which may have contributed to her death.

*Q. What precautions can practitioners take in view of the current situation?*

In its recent Newsletter the RCHM has suggested the following:

1. Always use reputable suppliers and enquire about their quality control measures to prevent fraudulent substitutions of herbs.
2. Avoid prescribing obscure or unusual herbs. The commonly used herbs (i.e. the 200 or so taught by the various schools and Colleges) are the ones that have been most thoroughly investigated for toxicity.
3. Avoid the use of high dosages. Confine yourself to dosages recommended in official pharmacopoeia and reputable texts such as Bensky and Gamble's *Materia Medica*.
4. Never prescribe a patent medicine unless you can be certain of all of its ingredients. Some may contain Western medical drugs (in which case it is illegal for you to prescribe them) and others may contain heavy metals (toxic and also illegal). If in doubt contact RCHM.
5. Monitor your patients carefully. It is recommended that patients be seen once a month and more frequently at first. You are legally required under the 1968 Medicines Act to see at least once in person any patient for whom you are prescribing herbs. Always be alert to overall changes in the patient's condition, e.g. lassitude, mild jaundice, changes in pulse and tongue.
6. Report any strange or unusual reactions to treatment at once to the RCHM Council including details of Western and Chinese diagnosis and herbs prescribed. It is essential that the profession establish its own effective reporting system in order to gain the trust of the public and our medical colleagues. All such information will be dealt with in confidence.

A further precaution, suggested by Rustin and Atherton, is to refer patients with skin problems or suspected liver abnormalities for full liver toxicology screening before prescribing herbs and during treatment. This can be done on the basis of blood tests taken by the patient's general practitioner or by hospital referral. This would demonstrate our responsibility as a profession, help to ensure patient safety and, if done on a regular basis, could also help to build up a powerful body of evidence on liver status before, during and after consumption of Chinese herbs.

### References

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- Blackwell, R., Herbal Remedies, Letters Page, The Times, Saturday 19th Sept. 1992.
- Dharmananda, S., Reported Liver Failure from Consumption of Chinese Herb Formula for Eczema, Faxed report to RCHM, August 1992.
- RCHM Newsletter, October 1992.

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