

# A Bitter Pill

## Abstract

At a recent TCM conference an animal welfare campaigner took the floor to give a presentation outlining details of the bear bile trade, including photographs of captive bears. Due to time constraints, the speaker was unfortunately rushed off stage with no time for questions, which left me wanting to know the names of the bear bile products the speaker referred to, that are being sold in my country, as well as in others, and wanting to find out what to do to help the bears. I left the conference feeling frustrated and determined to find out more about the bear bile trade and practical ways to stop it.

China is the biggest producer of bear bile, followed by Korea<sup>1</sup>. On the international open market bear bile powder is the most common type of bear product available, often fetching high prices, especially in Japan, where bile powder has fetched up to US\$252 per gram and the average price for a wild bear gall bladder is US\$33 per gram – that's US\$33,000 per kg<sup>1</sup>. Although modern practitioners of Chinese herbal medicine in most countries do not use or support the use of bear bile, with the returns outlined above, the industry continues to be lucrative. Ironically, the supply of bear bile is currently exceeding demand by a factor of 2:1, which has led to some manufacturers fabricating non-medicinal products such as bear bile shampoo, skin cream, wine, suppositories, eye drops, tea and others, to capitalise on the consumer preference for animal products used in traditional medicine<sup>2</sup>. The top eight consumers of bear bile products, in descending order by volume, are China, South Korea, Japan, Indonesia, Taiwan, Malaysia, Singapore, USA, Canada and Australia<sup>1</sup>, all signatories to the CITES treaty, prohibiting international trade in bear bile, among other endangered animal products.

Animal rights campaigners have made some inroads into the trade. They have succeeded in closing down forty Chinese bear bile farms and rescuing two hundred and five bears (out of an estimated 7000 captive bears)<sup>3</sup>. In that context, it should be noted that 98% of the gall bladders of rescued bears have shown evidence of cholecystitis and many have also shown signs of infection<sup>3</sup>. It follows that, in addition to other concerns about the ethics of the trade, one might also question the health benefits of consuming bile produced by an infected organ.

In November 2005, Animals Asia Foundation (AAF) signed a formal Agreement with the Vietnamese Government with a view to the rescue of two hundred farmed bears in Hanoi. According to the terms of the agreement, the Vietnamese government plans to register and microchip all bears currently in

captivity, under the auspices of the World Society for the Protection of Animals (WSPA), to phase out bear breeding farm enterprises, and to strengthen the ban on the capture of bears in the wild<sup>4</sup>.

That same month, the WSPA co-hosted an 'International Symposium on TCM and Animal Protection', in Toronto, Canada, which focussed on bear bile and its alternatives. Professors from universities and major TCM associations came from all over the world, including China, to present the results of their research into bear bile alternatives. The overwhelming consensus at the conference was that the use of bear bile is unnecessary, cruel and against the basic principles of TCM which are about a harmonious relationship between humans and nature<sup>5</sup>.

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As from January 2006, a cross-party written declaration signed by more than 370 MEP's from all 25 member states across Europe, and calling for the Chinese government to end bear bile farming, became official European Parliament Policy. Soon after this news broke, the Chinese Government in Beijing held a press conference to rebut the EU declaration. They stated that they had no intention of eliminating the practice of bear farming until an alternative to bear bile could be found. They added that it was a necessary component of TCM, involving a completely painless procedure for the bears<sup>6</sup>.

Further research to determine the efficacy of alternative products is certainly required. Having said that, at the time of writing, 2,644 items of research were located on PubMed upon searching the term 'UDCA' (a synthetic alternative to bear bile discussed in detail below)<sup>7</sup>. It is also estimated that 100,000 kilos

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of UDCA are already being consumed each year in China, Japan and South Korea and the total world consumption may be double this figure<sup>8</sup>.

### Clinical Alternatives

Xiong Dan (Mandarin), Yu-tan (Japanese), Ungdam (Korean)<sup>9</sup> and in pharmaceutical language 'Fel (bile)<sup>10</sup> Ursi (bear)<sup>11</sup>' is bitter and cold. It clears heat and detoxifies fire poison, clears Liver fire<sup>9</sup>, checks Liver wind<sup>12</sup> and brightens the eyesight through nourishing the Liver. It enters the Liver, Gall Bladder, Spleen, Stomach<sup>9</sup> and Heart<sup>13</sup> channels and has a descending action. People suffering disorders such as epilepsy<sup>13</sup>, hepatitis<sup>9</sup>, red eyes<sup>9</sup> and haemorrhoids<sup>9</sup> use bear bile. It is mainly used in treating liver disease and neurological disorders<sup>12</sup>. It is anti-inflammatory, protects the liver and promotes the secretion of bile<sup>12</sup>.

The question is not 'does bear bile work', but 'what can be used to effectively replace it'.

Synthetic bear bile, or ursodeoxycholic acid (UDCA), with the generic drug name of ursodiol, is now being widely produced under brand names such as Actigall, Urso, Ursofalk, Ursogal and Ursotan, depending upon where you are in the world. It can be synthesised using cow or pig bile and even using no animal ingredients<sup>14</sup>. According to Professor Clifford J. Steer M.D., Professor of Medicine, University of Minnesota Medical School, it is now possible to analyse in detail the constituents of bear bile and reproduce the extract by purchasing the different bile acids from commercial vendors, and indeed to synthesise the different bile acids in the laboratory without using any animal tissue at all<sup>15</sup> and at a fraction of the price of farmed bear bile. His interest has arisen from his groundbreaking research into the application of synthetic UDCA in the treatment of Huntington's disease.

Data accumulated to date point to UDCA's usefulness in treating numerous diseases, especially intrahepatic cholestases. The drug is demonstrably safe, even in trials involving children. We know that used in the treatment of biliary atresia subsequent to a Kasai procedure it improves biochemical parameters such as bilirubin levels and hepatic enzyme activity, as well as promoting an increase in body weight<sup>16</sup>. Good effects have been obtained in the treatment of cholestasis presenting in conjunction with Caroli's disease<sup>16</sup>, primary biliary cirrhosis<sup>17,18</sup>, dissolving gallstones and foetal erythroblastosis<sup>9</sup>. Based on research results published in July 2004, derivatives of synthetic UDCA may serve as potential lead compounds in the treatment of colon cancer<sup>19</sup>. Research into its use in the treatment of Parkinson's disease, Alzheimer's disease, spinal cord injuries and hemorrhagic strokes is ongoing<sup>20</sup>.

In a different trial<sup>12</sup>, 280 hepatitis patients were treated with intravenous injection of bear bile, diammonium glycyrrhizinate injection, or oral administration of *Yin Chen Hao Tang* (Artemisia Yinchenhao Decoction) respectively. The results showed that the total effective rate for bear bile

was 96.1%, while that for *Yin Chen Hao Tang* was 84.3%, with diammonium glycyrrhizinate showing results similar to *Yin Chen Hao Tang*. This result indicates although bear bile indeed has a better effect in treating hepatitis, *Yin Chen Hao Tang* can effectively treat the illness.

Professor Deng Tietao, of Guangzhou University for TCM formulated *Jian Pi Huo Xue* Formula (Formula to Invigorate the Spleen and Blood) to treat chronic hepatitis B, taking into consideration the characteristics of Spleen deficiency and blood stasis common in the presentation of this disease. This formula is composed of Tai Zi Shen (*Pseudostellariae Radix*) 15g, Fu Ling (*Poria*) 10g, Wu Zhao Long (*Ipomoea Cairica Radix*) 15g, Bai Zhu (*Attractylodis macrocephalae Rhizoma*) 10g, Dan Shen (*Salviae miltiorrhizae Radix*) 20g, Chi Shao (*Paeoniae Radix rubra*) 20g, San Qi (*Notoginseng Radix*) 10g, Hong Hua (*Carthami Flos*) 10g, and Ye Xia Zhu (*Phyllanthi urinariae Herba*) 20g. A clinical trial on 54 patients showed that this herbal formula is highly effective. Measuring criteria such as clinical symptoms, blood tests, and HbeAg levels, this animal-free herbal formula exhibited beneficial effects similar to interferon, which was used as a positive control<sup>12</sup>.

For practitioners in the clinic, it is evident that, having made a clear diagnosis based upon the principles of TCM, appropriate herbal alternatives to bear bile do exist. For example, in the case of Liver fire leading to red eyes, we know that Huang Lian (*Coptidis Rhizoma*) and Ye Ju Hua (*Chrysanthemi indici Flos*) have been found to have a similar effect to bear bile in treating this condition. The use of prescriptions with these herbs can treat such problems at a lower cost than preparations including bear bile and often with even better results, particularly when acupuncture and bleeding therapy are concurrently used<sup>21</sup>.

### Suggestions on what you can do to bring about effective change inside and outside of the clinic:

- Educate yourself on which herbal substances are produced from endangered species and on viable botanical substitutes for each of them.
- If your practice is not already restricted in its prescribing policies by national legislation or by your registering body, don't prescribe substances procured cruelly or illegally from endangered species. Make sure your patients know you do not, and why.
- Encourage people to always ask whether their herbs, both over-the-counter and prescribed, contain products derived from endangered species.
- If they have not already done so, ask your registering body to devise and implement some kind of 'eco-certification' policy, re non-use of endangered species.
- If you are a teacher, educate your students on the above points. Make it part of the curriculum. Today's students are tomorrow's practitioners.

- Donate money to organisations such as WSPA and AAF and join in their campaigns, for example: sign the petition found at [www.animalsmatter.org](http://www.animalsmatter.org), which will be forwarded to the UN. Write a letter to the Chinese embassy in your capital city, supporting the rescue of the bears and encouraging the total elimination of bear farming by the 2008 Beijing Olympics.

## Note

A list of wildlife ingredients found in complementary medicines (in Australia) and their possible alternatives can be found on: <http://www.deh.gov.au/biodiversity/trade-use/publications/traditional-medicine/index.html>

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## References

- Bhiksu WH, Bonfiglio M.B., Chen Y-M., Govind V., Ho S., Kurniawan D., Loh R., Maas B., Nursahid R., Pereira D., Sakamoto M., Su P-F., Togawa K., Watkins V., Wilson P., Wu S., Yi H. (October 2002). *The Bear Bile Business. The global trade in bear products from China to Asia and beyond*. WSPA: London.
- American Embassy in China (30/5/06). <http://www.usembassy-china.org.cn/sandt/BearBileFarming.htm>
- World Society for the Protection of Animals (30/5/06). <http://www.wspa-international.org/index.asp>
- Animals Asia Foundation (30/5/06). 'Vietnam Bear Rescue', <http://www.animalsasia.org/index.php?module=2&menupos=11&lg=en>
- World Society for the Protection of Animals Canada Region and G Raymond Chang School of Continuing Education, Ryerson University (20/11/2005). 'International Symposium TCM and Animal Protection', Symposium notes. WSPA: Toronto, Canada.
- Animals Asia Foundation (30/5/06). <http://www.animalsasia.org/index.php?module=8&menupos=1&submenupos=1&item=2&lg=en>
- National Library of Medicine and the National Institutes of Health (30/5/06). <http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?CMD=search&DB=pubmed>
- World Society for the Protection of Animals, Australia (30/5/06). <http://www.wspa.org.au/index.asp>
- Bensky D, Gamble, (1992). *Chinese Herbal Medicine Materia Medica*. Eighth printing. Eastland Press: Seattle.
- Davis F.A., (1986). *Taber's Cyclopedic Medical Dictionary*. Edition 15. FA Davis Company: Philadelphia.
- Macquarie Library, (1985). *The Macquarie Dictionary*. Revised Edition. Macquarie Library: Dee Why, Australia.
- Wang, Z. (20/11/2005). 'Medicinal Use of Animal in TCM & Animal Protection', *International Symposium Traditional Chinese Medicine and Animal Protection*, Symposium notes, WSPA: Toronto. 6-9.
- Li, Y. (20/11/2005). 'Acupuncture Treatment for Epilepsy', *International Symposium Traditional Chinese Medicine and Animal Protection*, Symposium notes, WSPA: Toronto. 24.
- the HD Lighthouse. Huntingtons Disease: information and community (9/6/06). 'UDCA For Huntington's Disease', <http://hdlighthouse.org/treatment-care/treatment/drugs/tudca/human/updates/0032ursodiol.shtml>
- AnimalsAsiaFoundation(5/7/06). 'Cruelty Free Alternatives to Bear Bile', <http://www.animalsasia.org/index.php?module=2&menupos=6&submenupos=2&lg=en>
- Lebensztejn, D. M. (June 2000). 'Application of ursodeoxycholic acid (UDCA) in the therapy of liver and biliary duct diseases in children', [http://medscimonit.com/pub/vol\\_6/no\\_3/1375.pdf](http://medscimonit.com/pub/vol_6/no_3/1375.pdf), 632-636
- First Principles of Gastroenterology (6/11/06). 'Cholestasis', <http://gastroresource.com/GITextbook/En/Chapter14/14-9.htm>
- Richards, N (February 2005). 'A Story About a Small Feisty Warrior', *Journal of Chinese Medicine* number 77, 53-56
- Park S.E., Choi H.J., Yee S.B., Chung H.Y., Suh H., Choi Y.H., Yoo Y.H., Kim N.D., (July 2004). 'Synthetic bile acid derivatives inhibit cell proliferation and induce apoptosis in HT-29 human colon cancer cells'. [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list\\_uids=15202011&query\\_hl=3&itool=pubmed\\_DocSum](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15202011&query_hl=3&itool=pubmed_DocSum)
- Cochrane G. M., Robinson J. (July 2002). 'Introduction. Animals Asia Foundation Report. Bear Farming in China. Veterinary and Welfare discussions of Bear Farming and Bile Extraction Methods'. [http://www.animalsasia.org/eng/images/cbr/VetCentre/AAF\\_VetReport.pdf](http://www.animalsasia.org/eng/images/cbr/VetCentre/AAF_VetReport.pdf). 2
- Liu Z. (20/11/2005). 'Alternative Remedy for Bear Bile on Treatment of Eye Diseases', *International Symposium Traditional Chinese Medicine and Animal Protection*, Symposium notes, WSPA: Toronto. 26.