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COVER STORY

HERBS Falling into Favor Down Under

Australia hosts the second international conference on herbal medicine
by Marilyn Bitomsky

Complementary medicines, particularly herbal treatments, are becoming increasingly popular in Australia-and the government is getting right behind them, an international conference was told. Australian Senator Grant Tambling, parliamentary secretary to the minister for health and aged care, said there is growing international demand for herbal medicines by consumers and this provides a major incentive for more robust research.

Senator Tambling gave the opening address of an international conference in Brisbane, Australia, "Herbal Medicine: Practice and Science," the second such conference to be held. The first was held in Auckland, New Zealand, three years ago. The next one, according to Mr. Kerry Bone, research and development director of MediHerb, may be held in Hawaii in two or three years, and is likely to attract a large contingent from the United States. Mr. Bone said the first one brought together 300 delegates, and because of the vastly increased interest in herbal medicines the Brisbane one recorded over 500 registrants.

"Herbal therapies are taking on an increasingly important role in the health care industry," said Senator Tambling. The reasons, he suggested, include the need for consumers to have access to effective and safe medicines of all types. Another is the increasing acceptance by governments, regulators, the community and various professional groups of the potential benefits of an increasing diverse range of complementary health care products becoming available in Australia and abroad.

It is looking as if complementary medicines, and in particular those derived from herbs, will play an ever-increasing role in the future of health care arrangements in Australia, he said. The Australian government will play an obvious role as the regulator, providing a regulatory regime able to accommodate and facilitate competitive market growth, while ensuring consumer confidence in the safety of Australian therapeutic goods.

Senator Tambling believes pharmaceutical medicine has a lot to thank herbal medicine for. Herbal medicine has been the practice of many indigenous cultures for thousands of years and what we now tend to call "conventional medicine" has built upon the lessons learned from herbal therapies. Since many consumers are seeking products to enhance their well-being, there will continue to be further discoveries as people scour the world for natural models for health solutions. Recent discoveries include the anti-cancer drugs taxol and vincristine, he said. Taxol is found in *Taxus baccata* (common yew) and *Cephalotaxus mannii* (Mann's plum yew), and vincristine is found in *Vinca minor* (periwinkle) and *Catharanthus roseus* (Madagascar periwinkle).

Strong support from the Australian government: questionable from the UK

Commenting on the strong Australian government support for herbal medicines, Barbara Griggs, author of *Green Witch: A modern woman's herbal and health editor of the UK-based magazine Country Living*, said "you seem to have it brilliantly sorted in Australia. Every inch of the way in Europe we are going to have a battle because there is a lot of entrenched opposition to the freedom we would like, both for practitioners and for access to good, safe, quality herbal medicines."

Another problem in the United Kingdom is the lack of high-quality herbs. The best tinctures are grown from organically grown herbs, but very few herbalists even have a window box or back yard, let alone a garden where they have the room, the space, and the time to grow their own herbs, Ms. Griggs said. Yet, the public has a right to expect proper quality control when they buy herbal medicine. "I don't think any herb should be sold without adequate quality control, even the smallest quantity of ground ginger. People should know that when they are buying ginger they are actually buying *Zingiber officinale* properly controlled in the

manufacture and not contaminated with other herbs. That quality control is an absolute minimum for herbal products."

Ms. Griggs said integrative medicine is, fortunately, becoming more popular in the UK. For example, more and more people are realising that with severe problems, such as arthritis, doctors do not always hold the answers, except to provide anti-inflammatory drugs that may have side effects and will not provide a cure. These drugs simply offer relief from the pain.

The major drawback in seeking alternatives is the cost, she said. "Alternative therapies may be reasonably priced compared with some of the drugs that the National Health Service is paying for, but they are still a load of money. Even if a packet of pills is only five pounds for a week's supply, this mounts up. Millions of people can't afford to go to an alternative practitioner, but I feel that kind of health care should be available to everyone as part of an integrated package. It is cost effective because alternative medicine is tremendously cost effective, because it actually cures people who on conventional medicine alone would simply continue to be treated year after year. Alternative medicine can get people off the sickness treadmill and back into normal working life. Even if they are treated, the cost is much lower than that of conventional medicine."

Dementia: an herbal success story

Alzheimer's disease (AD) is one disease where phytomedicines are offering an opportunity for prevention, the conference heard. With this disorder, by the time a person begins to show symptoms, much brain damage has already occurred. This means it is essential to identify those at risk and then prepare a nutritional protocol that will slow down or even stop progression of the disease.

Generally acknowledged risk factors for AD are head injury, hypothyroidism, advanced maternal age, low educational attainment, smoking and vascular conditions such as hypertension. Controversial risk factors include history of depression, zinc deficiency or zinc exposure, stress, solvent exposure, HSV-1 exposure, aluminium exposure, elevated plasma homocysteine and thiamine deficiency.

The following have been identified as possible protective factors: vegetarian diet, vitamin C and E supplementation, use of benzodiazepine drugs, use of anti-inflammatory drugs, wine intake, and calcium and silicon in drinking water.

The currently approved drugs for the treatment of AD are acetylcholinesterase inhibitors, with the two commonly used drugs being tacrine and donepezil.

Mr. Bone believes there could be a role for herbs in primary prevention, reducing the risk in the normal population. Recently a number of trials have been published on the use of Ginkgo biloba in AD. Mr. Bone said a meta-analysis of these concluded that there was a small but significant effect with three to six months of treatment with 120 mg to 240 mg of standardized extract on objective measures of cognitive function. In that study, results on noncognitive behavioral and functional measures as well as global rating were inconclusive.

Since then, further positive studies have been published. Numerous studies have demonstrated the neuroprotective effects of ginkgo, which possesses antioxidant and anti-inflammatory properties. Ginkgo reduces oxidative damage observed in brain and liver mitochondria. It is non-toxic and relatively free of side effects.

A study at the University of Washington in Seattle found that cat's claw (*Uncaria tomentosa*) prevented the deposition of beta-amyloid in vitro and in vivo. When the cat's claw was mixed with ginkgo, gotu kola, and rosemary, it worked even better in vitro. The formula is being trialed clinically in patients with mild to moderate AD.

A group of British scientists investigated plants, such as sage (*Salvia officinalis*), with positive results, while Japanese research has shown in a number of experimental models that peony and paeoniflorin are cognition enhancers. Paeoniflorin was highly active, even at 0.01 mg/kg orally, and acts against drugs that deplete acetylcholine in the central nervous system in experimental models. Intestinal metabolites are probably among the true active constituents.

The herb *Bacopa monniera* is rich in steroidal saponins, such as bacoside A and B. One study found it to result in improved acquisition and retention and delayed extinction of newly acquired behaviour. An uncontrolled clinical study demonstrated improvement in epileptic patients over two to five months of treatment.

Other herbs traditionally regarded as cognition enhancers or anti-ageing promoters are *Rosmarinus officinalis*, *Melissa officinalis*, *Centella asiatica*, *Polygonum multiflorum*, *Panax ginseng*, *Withania somnifera*, and *Schisandra chinensis*.

Prostate cancer prevention and treatment

There is much that can be done for prevention as well as treatment of prostate cancer through both diet and phytotherapy, Dr. Iggy Soosay, lecturer at the Graduate School of Integrative Medicine at Swinburne University in Melbourne and founding president of the

Australasian College of Herbal Medicine, told the conference.

In a review of data on prostate cancer from 42 countries, prostate cancer mortality was found to be inversely related to consumption of cereals, nuts, oil seeds and fish. The strongest association found was between total fat intake and increased risk of prostate cancer. In some eastern countries, particularly Japan and China, there is a very low incidence of prostate cancer and also a low fat consumption. When these people come to live in Western countries, their prostate cancer rises to that of the local population.

In another study, polyunsaturated omega-6 fatty acids were found to stimulate mammary and prostate cancer, tumor growth, and metastasis, while omega-3 fatty acids were found to have inhibitory effects.

An analysis of 72 studies of diet and cancer revealed that 57 of them showed an inverse relationship between tomato intake and cancer, the strongest relationship being for prostate, lung and stomach cancers.

Soy and green tea also produced interesting responses. A study of 350 ml of soy consumption daily for one month was found to have no effect on testosterone, although dihydrotestosterone (DHT) decreased by 13% at the end of the fourth week. Catechins in green tea were found to induce apoptosis in prostate cancer.

Another positive result was found with silymarin, which interfered with the major pathway of growth stimulation of androgen-independent prostate cancer. It blocks the message going from membrane to nucleus.

Cancer is restricted by angiogenic inhibitors, Dr. Soosay explained, and several plant-derived angiogenic inhibitors have proven effective. For example, the alkaloid from *Castanospermum Australe* or Moreton Bay chestnut, is effective. So too is colchicine, the alkaloid from *Colchicum autumnale* or autumn crocus, and taxol, which is diterpene from *Taxus brevifolia* or the yew tree. Other inhibitors are vinblastine and vincristine, which are alkaloids from *Catharanthus roseus* or rose periwinkle, magnosalin and magnoshinin, which are neolignans from *Magnolia salicifolia*, genistein, which is an isoflavonoid from soy bean and other legumes, ginsenosides, which are saponins from *Panax ginseng*, and isoliquiritin, which is a flavonoid from *Glycyrrhiza glabra*. He described this as "an exciting area for future research."

Dr. Soosay concluded that a diet low in animal fat, with soy consumption around 350 ml per day, increased consumption of whole grains and nuts, and rich in green tea and tomatoes was beneficial. He also concluded that *Panax ginseng*, *Glycyrrhiza glabra*, and *Silybum marianum* were helpful.

Morning sickness no more, and other benefits

Rubus idaeus (raspberry leaf), according to Melanie Koeman from the Jocelyn Centre for Natural Fertility Management in Sydney, may be used for alleviation of morning sickness, prevention of miscarriage, reduction of labor pains, encouraging an efficient and speedy birth, prevention of postpartum hemorrhage, and assisting post partum involution and lactation.

This simple remedy is used by many pregnant women and is a mainstay preparation for partus. Concern has been expressed in the past about use of *Rubus* in the first trimester, as it supposedly causes Braxton Hicks contractions or miscarriage. This may be due to the traditional use of the wild North American raspberry *Rubus strigosus* as a uterine and pregnancy tonic, whereas today we use *Rubus idaeus*.

Rubus contains numerous minerals and vitamins including calcium, potassium, phosphorus, iron, vitamins A, B, C and E. It also contains tannins and fragrine, an alkaloid which may in part be responsible for the muscle tonic effect of the herb.

Another helpful herb is *Urtica dioica* (nettle), Ms. Koeman said. Used for centuries as a nourishing tonic for weakness and debility, convalescence and anemia, this important weed is often forgotten in the bright blaze of other "bigger" herbs. It is especially useful for many complaints or conditions of pregnancy.

Weed describes it as "one of the finest nourishing tonics known.... Some pregnant women alternate weeks of nettle and raspberry until the last month and then switch to nettles to insure large amounts of vitamin K in the blood for the birth."

A mild remedy with minimal chronic toxicity, nettle can be described as nourishing and restoring, astringing, stabilising, stimulating and dissolving. It strengthens the liver and enriches the blood, increasing stamina, evening fatigue, dizziness and pale complexion, and it restores connective tissue and endocrine glands. It promotes detoxification of the skin, joint, urinary systems. Ms. Koeman said it also promotes urination, drains fluid congestion for general body or ankle oedema, puffy eyes in the morning and hemorrhoids.

General well-being

Well-known medical botanist and president of Duke's Herbal Vineyard Dr. James Duke reported to the conference his own

anecdotal experience with a mixture of echinacea and garlic to ward off infection. He was particularly proud of the fact that fresh garlic warded off close contact with grandchildren who might bring coughs and colds!

He also takes turmeric and capsaicin regularly. Turmeric has similar activity as Vioxx and Celebrex, which are cyclooxygenase inhibitors, he said. Capsaicin, used either topically or by ingestion, helps his problematic knee. "Either way, you are getting some salicylic acid, nature's aspirin. You are also slowing or stopping the transmission of pain and increasing your internal pain killers, or endorphins or natural opiates. In those three ways, the hot pepper can work to relieve pain."

Safety in herbs

Herbal therapies are generally safe, according to Dr. Amanda McQuade Crawford, president of the National College of Phytotherapy, Albuquerque, New Mexico. She told the conference that people are yearning for a natural relationship to the planet and to their own health, and they can be confident that very few problems have been identified.

Herb-drug reactions are mainly theoretical at this stage, she said, and very few have been found in clinical practice. "So even though there are large numbers of potential interactions because of compounds in plants and compounds in drugs, in reality we have found only a small handful that are serious enough to consider."

Herbal medicine for acute conditions

According to Ms. Mary Melling, director of the Paddington Acupuncture and Natural Therapies Clinic in Paddington, Queensland, herbal medicine is now used more for acute conditions than it ever was in the past. "When I first began practice [almost 20] years ago, people were looking to herbalists only as the last port of call after they had tried every other avenue. Now I find people come to us for colds and flu."

For the common cold, she often uses Echinacea, Hypericum and Bactrisia. Herbs like the golden seal she uses for sinus problems and upper respiratory disorders, and for throat infections she finds the antibacterial properties of thyme to be particularly effective. Euphrasia, or eye bright, is another good herb for the upper respiratory tract, as is ginger, she said.

Given the strong interest in the vast range of diseases and disorders that were reported at this conference to be helped by herbal therapies, it is certain that the next conference will be even larger.

References

Holmes P. The energetics of western herbs. Vol. 1. Boulder CO: Snow Lotus Press, 1997.

International Conference on Herbal Medicine: Practice and Science, 1999, Brisbane, Australia.

Ohta H, Matsumoto K, Shimizu M et al. Pharmacol Biochem Behav 1994; 49(1): 213-217.

Ohta H, Matsumoto K, Watanabe H et al. Japan J Pharmacol 1993; 62(2): 199-202; 62(4): 345-349.

Ohta H, Ni JW, Matsumoto K et al. Pharmacol Biochem Behav 1993; 45(3): 719-723.

Oken BS, Storzbach DM, Kaye JA. Arch Neurol 1998; 55: 1409-1415.

Paschka AG, Butler R, Young CY. Induction of apoptosis in prostate cancer cell lines by the green tea component epigallocatechin-3-gallate. Cancer Lett 1998; 130: 1-7.

Perry EK, Pickering AT, Wang WW et al. J Pharm Pharmacol 1999; 51(5): 527-534.

Proof! what works in alternative medicine. What doctors don't tell you. Spring 1999.

Rose DP. Dietary fatty acids and prevention of hormone-responsive cancer. Proc Soc Exp Biol Med 1997; 216(2): 224-33.

Singh HK, Dhawan BN. J Ethnopharmacol 1982; 5: 205-214.

Thomas JA. Diet, micronutrients, and the prostate gland. Nutr Rev 1999; 57: 95-103.

Weed SS. Wise woman herbal for the childbearing year. Woodstock NY: Ash Tree Publishing, 1986.

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