Evidence-based alternative medicine

While the November issue of the *Journal of the American Medical Association* devoted space to the topic of complementary/alternative medicine,[1] this issue of the *Hong Kong Medical Journal* contains seminar papers on the issue of evidence-based alternative medicine. One may wonder why complementary medicine has suddenly gained such recognition. Not long ago, all medical practices outside the realm of modern technology were dismissed as unscientific. The fact is that despite the successes of modern medicine, there remain many areas where standard clinical management is inadequate.[2] Allergic conditions, autoimmune diseases, chronic pain, viral infections, and advanced cancer are a few examples. Patients disappointed with ineffective treatments naturally look for alternatives. The efficiency of specialisation may have also led somewhat to overly technical management and a tendency towards rigid approaches to treatment which overlook holistic considerations. Patients may therefore resort to alternative care which promises a holistic approaches. Moreover, although complementary medicine does not necessarily mean cheap medicine, the rising costs of modern investigations and treatment do deter a good number of patients who need to be careful about their spending.[3]

It is therefore not surprising that in all major cities in the US and Europe, the number of neutraceuticals and herbal therapies available in pharmacies have been rising steadily. It is also logical that even among health care providers, there is a genuine increase in interest concerning complementary medicine. Over 80% of medical schools in the US currently have courses on different categories of complementary medicine.[4]

Asia and Hong Kong are following the US and Europe in this trend. Complementary/alternative medicine in the American setting, however, includes over 30 different types of treatment, from acupuncture to massage, and from exercise therapy to aromatic therapy.[5] In a Chinese community, such as Hong Kong, however, complementary medicine is largely synonymous with Chinese medicine and acupuncture.[6] Hong Kong is experiencing a much greater interest in Chinese medicine since the change of sovereignty. Chinese medicine practitioners are now both recognised and registered, and thus enjoy the same social respect and professional recognition as practitioners of so-called western medicine.[7] Government policy of promoting Chinese medicine, both in service provision and drug production, has further boosted interest.[8]

However, is complementary medicine really useful and effective? Is Chinese medicine more than a cultural tradition? A popular argument espoused by energetic supporters of Chinese medicine is that 3000 years of use must constitute solid proof of efficacy. Another claim from the humble user is that he or she has tried the herbal preparation, and it has worked, while previously, modern medicine did not work.[9]

In this era of science and technology, we should have sufficient means to test the truth of these claims. Complete dismissal of complementary medicine is naive, and we possess sufficient means and resources to put the 3000 years of observations and belief to the scrutiny of objective, scientific tests.[10]

The World Health Organisation has endorsed the use of alternative medicine in different regions of the world, mainly out of respect for regional cultural beliefs. The World Health Organisation also encourages a practical step-by-step approach towards assessing the effectiveness of such popular treatment modalities with a view to discerning objective pharmacological truths.[11]

The National Institutes of Health (NIH) have taken a realistic and practical approach. The concern is with proof of efficacy, more than an exploration of basic science. Basic science research, such as looking for active components and the pathway of pharmacological action, were taken as a fundamental requirement for herbal research in the past. The difficulties, cost, and limited success of this approach have led to a change of tactic. The approach today is efficacy-driven—first prove that a certain herb or formula works before investigating the basic underlying mode of action. The NIH held a seminar in 1998 to consider the efficacy of acupuncture. The seminar resulted in the production of a statement that acupuncture offers an effective means of pain control.[12] The NIH subsequently formed a special committee on complementary/alternative medicine which published its first action plan in 2001, in which the efficacy-driven approach was thoroughly endorsed as NIH policy.[13]

Since then, millions of dollars have been poured into efficacy-driven research. Clinicians now lead this

process by organising scientific clinical trials evaluating the efficacy of traditional methods of treatment. If proven efficacious, the treatment is brought to the attention of chemists, biochemists, pharmacists, and pharmacologists, who can conduct chemical analysis, extraction, detection of active radicals, and determine the pharmocokinetics, and pharmacodynamics of the preparation. Of course, safety for consumption has to be confirmed before any trial, by a thorough review of the literature and essential tests to exclude heavy metal or biological contamination. This new direction is expected to uncover the efficacy or fallacy of some commonly used herbal formulae, and the manufacturing and marketing of some successful formulae. It would not be at all surprising if a few impressive drugs eventually emerge from this research process.

This small but significant move in global medicine should perhaps be drawn to the attention of colleagues not involved in the process. The current research endeavours can still be considered as drops of water amidst the major oceans of scientific research. Nonetheless, they represent a significant development, with impressive momentum in the US in particular.

Possibly colleagues are unaware of the changes too which have occurred in Hong Kong specifically. Before the revision of the code of practice for medical practitioners in 2000, colleagues were not encouraged to engage in Chinese medicine.[14] With the new code approved by the Hong Kong Medical Council, colleagues can become involved in Chinese medicine provided that four criteria are observed:

(1) the method of treatment used must be safe;
(2) there must be appropriate expertise;
(3) full consent from all parties concerned must be obtained; and
(4) the practice must be viewed as research, subject to peer review at any time.[15]

The days of discrimination against traditional medicine are over. Rather, we are in an era of objective exploration. Reports and manuscripts currently published could be subject to metanalyses,[16] while evidence-based, double-blind clinical trials on key treatments could be conducted in parallel.[17]

In the seminar series in this issue, many scholars have contributed their valuable work on evidence-based alternative medicine. Liao[18] reports findings on the actions of epigallocatechin gallate, and Tang and Leung[19] explain how clinical trials in Chinese medicine could be constructed. In parallel, Chow et al[20] explain the requirements for laboratory research into herbal medicines. Wing[21] reviews current evidence for the use of herbal preparations in insomnia, while Wong et al[22] report a clinical trial involving treatment with a herbal preparation. These two latter reports represent attempts in Hong Kong by practitioners to evaluate the efficacy of commonly used Chinese medicines. One should not look at the clinical trials in Chinese medicine completed to date as models, but rather as a critical look at these early endeavours should reveal the difficulties and consequent requirements inherent in future research efforts. Since acupuncture is widely practised in both the US and Europe, a local report on its application to the treatment of frozen shoulder is also included.[23]

As the Hospital Authority has decided to provide Chinese medicine clinics, to be followed by the introduction of Chinese medicine into hospital practice, it is hoped that this seminar on evidence-based alternative medicine could serve as a reference to colleagues engaging in Chinese medicine now or in the future. Many other new clinical trials of Chinese medicine are underway. Without doubt, reports of these trials will appear soon in local or international journals, and serve as important additions to the current knowledge and trend towards holistic care.

PC Leung, DSc, FRACS
Institute of Chinese Medicine
The Chinese University of Hong Kong
Shatin
Hong Kong

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