

Traditional Chinese Herbal Medicine: A Brief Introduction

Traditional Chinese Medicine (TCM) refers to a system of medical theory and practice that evolved in China over thousands of years. TCM treatment modalities encompass acupuncture and acupressure, traditional Chinese herbal medicine (TCHM), moxibustion and cupping, and exercises such as *qigong* (pronounced “chEE-gOOng”) and *taiqi* (pronounced “tIE-chEE”). While TCM has enjoyed increasing popularity over the past several years in Western communities, there remains a mysterious, elusive quality to the practice. TCM’s reputation derives in part from its basis in complex interactions between nature and the human condition, and in part from the subtlety required for diagnosis and treatment. This monograph introduces basic TCHM concepts, identifies potential risks, and describes research challenges.

The TCM Materia Medica lists over 5,767 substances, including plant and animal products, and minerals. At least 300 of these are considered to be in common use by practicing herbalists today. Many TCM herbs have common culinary uses; these have been classified as “functional foods”. Some examples familiar to the Western palate include ginger, cloves and dates. Some overlap exists between TCHM and commonly used western herbs such as ginkgo and ginger. TCM herbs are not only botanicals, but also include animal products, which tend to be the most exotic, and least well-studied, medicines: these include deer antler, turtle shell and seahorse.

Adding to the complexity, TCM herbs are seldom used singly. They are almost always given in combination formulas. Such formulas may be very simple, comprising 3 or 4 herbs, or they may have over 20 herbal components. The reason for the formulaic approach is that each herb has specific qualities, such as warming, cooling, or astringent. The combination of herbs is felt to balance and produce a synergistic effect. This approach is shared by other healing traditions such as Ayurvedic and Native American medicine, and may also be based on the concept that small quantities of multiple herbs are more likely to be effective and less likely to cause side effects.

In addition, because TCM is based on the principle of an individual, customized approach to the patient, specific combinations may suit certain patients, but not others. Each patient is considered to have a constitutional type, for example Patient A who has a hot constitution and a cough should not have the same herbal formula as Patient B with a cold constitution and cough. The warming elements in the formula for Patient A may cause adverse effects in Patient B. Such constitutional analyses are based on detailed history, observations of the individual's body habitus and skin, the appearance of the tongue, and the contours of the radial pulse. Thus the TCM diagnostic and therapeutic algorithm has multiple levels of subtlety which require detailed study and understanding.

Classically, TCM herbal formulas or prescriptions are dispensed in special Chinese Medicine pharmacies that stock dried, prepared herbs. These prescriptions are packaged per individual dose, and each dose must be boiled in water to make a soup or decoction, often several times a day. They are typically bitter and unpleasant to take, as well as inconvenient to prepare. Thus more often in Western countries, TCM practitioners rely on either granule preparations of single herbs, or patent formulations. Patent formulas are usually tried-and-true common remedies with broad applications, for example *Ying Qiao Jie Du Wan* is a common patent formula used for the common cold. It is so popular that there are multiple manufacturers and thus multiple versions of the same product found in a typical Chinese herbal shop.

The biomedical, or Western Medicine literature, has typically reported on the potential adverse effects of TCHM. Certain TCHM products have inherent properties that can be toxic, particularly when used inappropriately. The best known example is *ma huang*, or ephedra, an herbal precursor for sympathomimetic alkaloids such as pseudoephedrine and ephedrine. *Ma huang* was widely used in a variety of weight-loss and stimulatory agents, with multiple adverse events leading to an FDA inquiry into ephedra's toxicity. While causal links were never established, TCM experts agree that *ma huang* would only become risky if it was mis-used in extremely high doses, in an unopposed fashion, and for inappropriate indications. Unfortunately *ma huang*'s effects were exploited for quick selling, mass-market purposes; proper regulation and monitoring of the product would

have eliminated the risk, but the FDA continues to extend limited safety oversight for herbs and dietary supplements.

Toxicity from TCHM can derive not only from inappropriate dosing, but also from inadvertent adulteration (i.e. with heavy metals), intentional adulteration (i.e. with steroids, pain medication), and idiosyncratic reactions (e.g. hepatitis, anaphylaxis). More recently, considerable concern has arisen from potential drug interactions between herbal agents of any sort, and conventional biomedical agents, particularly anesthetic agents. Manufacturers and consumer protection groups have increasingly helped monitor and report on quality issues where government regulations have fallen short.

While there exists a considerable body of literature addressing the effectiveness of TCHM agents at this point, there remain fundamental problems with the research and data. Some are problems shared by clinical trials for Western herbal agents, for example, those related to manufacturing and standardization of active ingredient. Manufacturing issues have been addressed to some degree by the FDA's recent Good Manufacturing Practices (GMPs) regulation and self-imposed safety labeling initiatives introduced by some manufacturers. However, imported products such as TCHM patent formulas are often not required to adhere to US regulations, and thus it is helpful to determine the country of origin. For example, products manufactured in Hong Kong, Taiwan, Singapore and Canada are typically subjected to fairly rigorous monitoring.

Other issues with regard to research are specific to TCHM, such as methodology or study design. Because manufacturers are unable to patent herbal products in this country, there is limited incentive to build large, expensive, randomized clinical trials. The majority of studies have been conducted in Europe and Asia with highly variable degrees of quality, and considerable controversy regarding appropriate study designs, nomenclature and protocols. As noted above, the customized approach favored by TCM practitioners must be modified in order for TCHM agents or formulas with potentially multiple active ingredients, to be studied through conventional means.

As with other complementary and alternative medicine modalities, patients are encouraged to use common sense. Extravagant claims are unlikely to be supported by rigorous research. Chinese herbal medicines are usually available through a small number of retail shops in the Chinatown area of larger cities. While such products tend to be relatively inexpensive and easy to obtain, they may be of questionable quality and/or safety. Products from better manufacturers tend to be available only through licensed providers. Risks associated with TCHM use can also be reduced if prescribed through practitioners with specific advanced training in herbal medicine, and safety would likely improve further if there is good communication. Of note, TCM practitioners in this country may practice only acupuncture, only herbal medicine, or both; different states have different requirements for training and licensing.

References

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