Treating HIV Disease with Chinese Medicine

Qingcai Zhang, MD and Heidi Ziolkowski

Disillusionment with conventional medical approaches has prompted many people with HIV disease to seek alternative, or complementary, treatments. This article briefly discusses traditional Chinese medicine (TCM), one of the most frequently applied alternatives, how it can work to treat HIV disease, and specifically the role of herbal formulas.

Traditional Chinese medicine is an ancient system. Its clinical therapeutics were formulated 1,800 years ago by the Chinese sage Zhang Zhongjing and set forth in Shang Han Lun (Treatise on Febrile Diseases) and Jin Gui Yao Lue (Synopsis of Prescriptions of the Golden Chamber). TCM is also a modern approach. For over 30 years, Chinese researchers have explored the scientific mechanisms of many TCM therapies and herbal remedies. The discovery of Compound Q (trichosanthin; an extract of a Chinese cucumber being studied as an HIV antiviral drug) demonstrates the possible benefits of combining an ancient philosophy of health maintenance with modern techniques of medical analysis.

Philosophy of Traditional Chinese Medicine

Chinese and Western medicine see the same disorder from different perspectives. Unlike Western medicine, which employs microscopic evidence to identify a sickness in a specific part or parts of the body, TCM seeks to identify an illness by deducing the overall functioning of the body. It arrives at a diagnosis by analyzing the observed patterns of the symptoms, or “symptom complex.” The symptom pattern is called the patient’s zheng or “conformation.” In determining a person’s conformation, a TCM practitioner considers the location, nature, and probable cause of a patient’s condition together with his or her response to treatment. But conformation should not be confused with disease; rather, it is a total picture of the patient’s physiological, mental, and emotional states. Integrating the Western diagnosis of disease and the TCM diagnosis of conformation to formulate a better treatment protocol is standard procedure in the Chinese health care system. The combined use of both systems has yielded better therapeutic results than those achieved by either system alone.

Although HIV infection does not arise as a disease entity in TCM literature, it presents itself as a constellation of symptoms especially amenable to diagnosis and treatment by TCM. TCM philosophy maintains that, though the underlying nature of a disease is a legitimate concern, treatment often can be based on only the clinical appearance and physiological tendency of the disease. This treatment principle, known as “treating different diseases with the same method,” has, in recent years, incorporated Western diagnostic tools that allow for discrimination between diseases such as tuberculosis and AIDS. Without Western diagnostic procedures, the two conditions, whose patient conformations are the same at certain stages of each disease, would be treated similarly and thus, in some respects, inadequately.

The connection between ancient principles and the modern epidemic of AIDS is evident in the similarity between the constitutional changes of people with AIDS and the conformations of xu lao (debilitating weakness) and lao zhai (consumptive exhaustion), which are described in 2,000 years of Chinese medical literature. Recently in China, practitioners integrating TCM and Western medical practices have had positive results in treating viral diseases and immune deficiencies caused by radiation therapy and cancer chemotherapy. It is the hope of TCM practitioners that patients with HIV-induced immune deficiencies will respond in a similar way to these treatments.

As a holistic healing system, TCM involves several techniques, including acupuncture, massage therapy, and breathing exercises, in addition to the administration of herbal formulas, which are the focus of this article. In order to deal with diseases of different natures, TCM doctors have designed formulas usually composed of between eight and 12 herbs, some of which act synergistically, and others which modify the side effects of the component herbs. People with HIV disease can benefit from a number of TCM herbal strategies, including using antiviral herbs to rebuild the potency of the virus; using herbal immune regulators to rebuild the immune system; and using herbs to treat specific HIV-related opportunistic infections and malignancies, non-specific symptoms, such as night sweats and loss of appetite, and the adverse side effects of Western medications, for example, anemia caused by zidovudine (ZDV; AZT).

TCM Herbal Strategies

In cooperation with the San Francisco AIDS Alternative Healing Project, the Oriental Healing Arts Institute (OHAI) began, in March 1988, a six-month clinical trial of herbal therapy for AIDS patients. Later this work was continued in the greater Los Angeles area. To date, more than 200 AIDS patients have been treated with Chinese herbal formulas, and many practitioners are using OHAI’s HIV formulas in their practices.

The selection of antiviral herbs was, in part, based on pharmacological work done by researchers at the Chinese University of Hong Kong and the University of California, Davis. These researchers found that 11 Chinese herbs have HIV-inhibitory effects in vitro. Based on these findings, as well as a literature review and the clinical experience of OHAI-associated practitioners, OHAI designed three groups of herbal formulas (designated HY-1 to HY-39): antiviral and immune-enhancing formulas; formulas for non-specific constitutional changes; and formulas designed to treat specific opportunistic diseases.

Antiviral Herbal Formulas

It was difficult for OHAI to monitor these herbal remedies without interfering with patients’ conventional treatments. The results, while somewhat subjective “soft data,” do indicate that the formulas made patients less susceptible to other infections.

HY-30, Fu zheng & Quxie-II, (viola, licorice, epimedium, licorice, astringus, ligustrum, and gandoderma) and HY-31, Fu zheng & Quxie-III, (viola, epimedium, coptis, prunella, licorice, astringus, and cassia seed) were the most frequently prescribed

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formulas for the basic treatment of HIV disease. Among the seven
herbs in HY-30, viola, lonicera, epimedium, and licorice have
inhibited HIV replication and functioning in cell cultures. Viola,
lonicera, and licorice are the main ingredients of a formula tradi-
tionally used to treat viral diseases such as mumps. Japanese
researchers have found that the active component of licorice ap-
ppears to be effective in preventing the development of HIV-related
symptoms. Astragalus, ligusticum, and ganoderma are immune-
regulating herbs, and all three are used as tonics in China.
HY-31 acts similarly to HY-30. Using HY-31, a patient
lowered his p24 antigen level from 170 to an undetectable level,
without simultaneous use of ZDV.1 This patient also suffered from
second-degree heart failure caused by viral myocarditis. After
three weeks of taking HY-31, his heart functioning returned to
normal and his cardiologist released him from treatment. Practi-
tioners administered five more formulas from the antiviral/im-
mune-enhancing group of herbs. Among them, HY-1 was modi-
fied from Minor Bupleurum Combination, which Japanese scienti-
sts reported at the Fifth International Conference on AIDS inhibits
reverse transcriptase, an enzyme crucial to the replication of HIV.
Compound Q was not included among the 39 formulas, but it
is important to mention this antiviral here. Compound Q is
actually trichosanthin, a purified extract of a Chinese herb, and the
only drug that kills HIV-infected macrophages, while leaving
healthy cells unharmed. However, unlike the active ingredients in
the other herbs described in this article, trichosanthin is highly
concentrated and presents a greater potential for adverse side
effects.2

Herbal Formulas for Constitutional Symptoms
Some symptoms—pale complexion, weak pulse, shortness of
breath, fatigue, muscle aches, low-grade fever, chills, cold limbs,
spontaneous or night sweating, poor appetite, and emotional
instability—are not specific to any particular disease, but are
indicative of a patient’s general health.
OHAI designed a group of 15 formulas to deal with these
symptoms and help improve general health. For example, HY-34
is traditionally used for night sweats, and its efficacy has been
recently shown by controlled hospital observations of tuberculo-
sis patients in China. Likewise, HY-35 is based on the ancient Jade
Screen Formula, which can stop spontaneous sweating, prevent
respiratory-tract infections, and promote antibody production.

Treatment of Opportunistic Conditions
TCM’s recent HIV-related breakthroughs have been primarily
in the treatment of opportunistic infections and cancers. Since
these conditions must be prevented over the long term of HIV
infection, the drugs used to treat them must be of low toxicity and
without obvious side effects. TCM herbal treatments have proven
to be effective and virtually without serious side effects.
OHAI developed 19 formulas to deal with opportunistic
infections ranging from herpes, hepatitis, candidiasis and tubercu-
losis to Mycobacterium avium intracellulare (MAI), syphilis, crypto-
sporidiosis, respiratory-tract infections, and anemia. When OHAI
treated 17 cases of herpes using HY-21, based on the traditional
Gentiana Combination, all 17 responded favorably, and in 12
cases, lesions cleared up within one week.1 Three patients
experienced relapse after discontinuing use, but their lesions were
again controlled when HY-21 therapy was resumed.
In HIV disease, more than in any other condition causing
immunodeficiency, cryptosporidiosis is likely to cause a debilitat-
ing diarrhea, with symptoms often persisting for months. Since
infection of orally administered herbal formulas sometimes is not
sufficiently potent, OHAI designed an herbal enema to mount a
direct attack. In one case, a 42-year-old man with AIDS had
diarrhea about 20 times a day for more than two months. Herbal
enemas stopped the diarrhea, allowing the patient to gain weight.
Formulas for hepatitis, anemia, tuberculosis, MAI, candi-
diasis stomatitis, and esophagitis were also fairly effective. Hepati-
tis, in particular, responded well to herbal formulas (HY-14 and
HY-15 plus schizandra). According to two Chinese studies
involving more than 5000 subjects, the formulas quickly reduced
the SGOT and SGPT (enzymes whose presence indicates liver
inflammation) and cleared up jaundice.

Using Herbal Formulas Safely
The most common criticism of herbal medicines is that, since
species, collecting seasons, and production sites can vary, the
active components of formulas are not consistent. Furthermore,
the potency of herbs may vary depending upon the methods used
to prepare them—drying, steaming, or decocting (boiling)—which
differ in the degree that they may dilute the active essences of the
herbs. Finally, due to the time and equipment involved, many
may find the herbal preparation process inconvenient. These
variables can be reconciled through scientific preparation proce-
dures to achieve a consistent pharmacological effect, and extracts
can be concentrated to the point that the daily dosage is small and
requires no special preparation.
Chinese herbs, when correctly prescribed and taken, do not
interfere with the beneficial effects of Western drugs. They
are much less concentrated than chemically pure Western pharma-
ceuticals and so their effects are more subtle and less abrupt, and,
although it may be as long as four or five days before their effects
may be observed, they are longer lasting. In contrast, Western
drugs, which tend to work more quickly, are more superficial—
simply alleviating symptoms or killing disease organisms—and do
not bring about constitutional changes within the body.
Perhaps the greatest benefit of herbal formulas is that they are
virtually without adverse side effects, since some component
herbs alleviate the potentially harmful effects of other herbs.
Western medicine, on the other hand, accepts side effects from its
drugs as an inevitable cost of treating a specific ailment.1

Conclusion
TCM offers a person with HIV disease a means of restoring
balance to the body, so it can more effectively employ its natural
abilities to heal. When used properly and in tandem with Western
medical therapies, TCM can provide a solid foundation for treat-
ing civilization’s most recent affront to health—AIDS.

Qingcai Zhang, MD has a TCM practice in Cypress, California,
and specializes in treating immune disorders and chronic diseases.
Heidi Ziolkowski is an editor, science writer, and a professor of
journalism at California State University at Long Beach. Both are
affiliated with the Oriental Healing Arts Institute in Long Beach.

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Reconciling TCM and Western Medicine

Gifford S. Leoung, MD

The application of traditional Chinese medicine is difficult in a culture where medical doctrine is founded on the Western scientific method and practitioners are taught that illness is often caused by outside agents. While Western medicine focuses on the actions of microorganisms, environmental and other outside agents, particularly in terms of treating infectious disease, traditional Chinese medicine (TCM) suggests a contrary philosophy, that diseases are manifestations of imbalances of various energies—Yin/Yang, heat/cold, organ excesses/deficiencies—within the body. TCM cures by restoring the balance of forces; it does not seek primarily to control or eradicate external factors.

**Disease Theories**

Western medicine applies stringent tests to demonstrate cause and effect when defining a disease and its treatment. In the area of infectious disease, Western medicine requires that "Koch's postulates" be fulfilled before asserting that an organism is responsible for a particular disease:

- The organism must be recovered from the patient in accordance with the stage of disease.
- The organism is not found in any other disease process.
- Introduction of the organism into another susceptible animal or person must cause the same disease process.
- The same organism must be recovered from the other subject.

In TCM, the relationship between infectious agents and illness is not so well developed; outside pathogens may disrupt the normal balance of internal organ forces, but it is this imbalance, rather than the pathogens themselves, that causes illness. TCM treatment focuses on restoring the balance of internal organ forces.

There are other concepts that bridge TCM and Western medicine. Recently, Western medical research has become more involved in the molecular biology and chemistry that occurs during various stages of disease in terms of, for example, hormonal changes, immunomodulator levels, and the actions of cellular mediators. Perhaps the imbalances TCM practitioners have identified represent a non-Western formulation of the roles of these molecules. To carry this analysis further, rheumatologic (relating to connective tissue, particularly joints) and immunologic diseases—caused by imbalances of certain factors—are the classic Western medical example of systems gone awry.

**Western Scientific Method**

Western researchers develop treatments using the scientific method; they design and test drugs first in the laboratory, then in animals, and finally in humans, and publish their results in scientific journals. To comply with scientific tradition and regulation, experiments should be controlled—the test substances should be compared to either an existing agent known to be effective or to a placebo, if no effective agent exists; blinded—experimental subjects and the researchers who administer the treatment may not know who is receiving the drug and who is receiving the placebo; of appropriate size and time interval—the sample should include enough subjects over time to perform meaningful statistical analysis of the results; and reproducible—other researchers must be able to achieve the same results under the same conditions. Finally, Western medicine devalues anecdotal evidence, or, indeed, most "evidence" not developed using this method.

The process the U.S. Food and Drug Administration (FDA) uses to evaluate drugs reflects these tenets. The FDA process requires evidence of the identification of a drug's active ingredient, determination of the mechanism of action if possible, and definition of the appropriate dosage, usually determined by first performing animal tests to demonstrate toxicity and effectiveness.

**TCM Development of Treatments**

TCM is based on the use of remedies that have been developed through informal trial and error over thousands of years, a process very different from the tightly regulated one described above. All Chinese people are familiar with the scenario where homemade herbal remedies—either soups or teas—are dished out from large pots to all the members of the family. Frequently there is no set dosage of the remedy; all will partake of the brew until it is finished. Even when not acutely ill, family members will drink such brews, over the long term, as tonics to strengthen the body.

In the distant past, Chinese herbal formulations were found to be effective largely through the anecdotal observations of family members after such informal treatments. Observation of improvement was often the "proof" of efficacy. Gradually, these mixtures were refined into standard formulas. Once the formulation was applied and "shown to be effective" on a broader scale, it was accepted as a prescribed therapy for a particular illness.

Recently, TCM practitioners have invested more effort in using the Western scientific method to develop treatments. For example, they have used accepted microbiological assays—such as minimum inhibitory concentration (MIC) and minimum bacteriocidal concentration (MBC)—to show that some herbal formulations inhibit or kill microorganisms. However, there is little precedent among TCM practitioners to further investigate a formula before offering it directly to patients: researchers do not examine the character and purity of the formulation's active ingredient(s) or the mechanism of the formulation's action, and do not perform extensive animal studies of toxicity and efficacy.

These different methods of drug development make it difficult for Western physicians to accept TCM formulas. In Western medicine, however, there is some precedent. Dapsone, a drug developed primarily to fight leprosy, is effective in treating Pneumocystis carinii pneumonia (PCP). Since these drugs have been approved, general practitioners may be certain that they have met standards for toxicity and may consider taking advantage of their other effects to treat non-indicated conditions.

**TCM remedies have been developed through trial and error over thousands of years using a process very different from the tightly regulated FDA protocol.**

**Reconciling Philosophies to Treat HIV Disease**

Most Western physicians look upon TCM with a mixture of skepticism, disbelief, wonder, and hope. There is also a certain amount of an exotic romanticism, looking to the East where other seemingly benign practices such as acupuncture and acupressure have clearly offered relief to patients who have not responded well to standard Western style approaches. At a time when large numbers of HIV-infected people are dying and Western drugs, slow in coming, are only partially effective, health care providers might consider alternate modes of therapy that are apparently harmless. Practitioners, however, should be careful when combining modes of therapy, which may make it difficult to judge the value of a particular method, and wary about abandoning Western therapies, which despite short-term adverse effects, may prove to have long-term benefits. Ultimately, it is important to remember that the majority of Western-trained physicians will not be convinced about the usefulness of TCM until it proves itself using the Western scientific method on a large scale.

Gifford S. Leoung, MD is Assistant Clinical Professor of Medicine, specializing in infectious disease, and on the staff of the AIDS Program at the University of California San Francisco.
Recent Reports


In an overview examining research on traditional Chinese drugs, the authors discuss the present and future of pharmacological investigations. Among the points mentioned are the nature of the "Chinese composite prescription" and the utility of combining herbs to enhance their benefits and reduce their adverse effects. Likewise, in undertaking drug research, the herbal components of formulas should not be examined separately but, instead, in the combinations in which they are used in clinical practice.

The article suggests that Western pharmacological investigation—laboratory study of the effects of an herbal formula—can broaden the possible uses of formulas and prove traditional theories of Chinese medicine. It also explores designing pharmacological research studies for Chinese formulas. The article includes technical references to Chinese medical diagnoses and herbal compounds, in addition to theoretical concepts. It is, however, accessible to practitioners with a Western scientific background.

Compound Q Update. Related Abstracts from the Sixth International Conference on AIDS, June 20 to 24, 1990.

Compound Q is effective at inhibiting HIV, but causes severe side-effects, according to several presentations at the international conference. In a study of 51 subjects with advanced HIV disease, 10 of 16 individuals who tested positive for p24 antigen had significant decreases in antigen levels one month after the first injection of the drug, and one subject who had been p24 positive reverted to being p24 negative. In addition, subjects with initial CD4+ counts of above 100 showed significant increases in CD4+ counts after three infusions of Compound Q.

Subjects received various doses of the drug in three injections over a period of up to 21 days. Six patients developed dementia within 60 hours of infusion, including two patients who progressed to coma. (Immunology Inc., Project Inform, and the University of Nottingham, England, Abstract S.B.466.)

A second study demonstrated a number of side effects to Compound Q treatment, but no apparent toxicity to red or white blood cells. (San Francisco General Hospital and University of California San Francisco, Abstract S.B.465.) Three laboratory studies showed Compound Q inhibits HIV replication in infected cells. (Genelabs Inc., Abstracts Th.A.232, Th.A.233, and F.A.67.)

Chinese Herbal Medicines as Treatment for HIV. UCLA School of Medicine and Cedars-Sinai Medical Center (Abstract Th.A.237 from the Sixth International Conference on AIDS).

Ten of 56 Chinese medicines tested in laboratory cultures inhibited HIV without producing noticeable cellular toxicity. The two drugs with the highest therapeutic index (a measure of effectiveness versus harmfulness) were Injection Yin Huang and Injection Co. Dan Shen. Researchers are now studying how these 10 treatments affect primary HIV isolates.


The CDC reported a case of AIDS in a young woman who may have contracted the virus from her HIV-infected dentist during the removal of two teeth. Four weeks after the procedure, the woman was diagnosed with aphthous ulcers and pharyngitis; 17 months after the procedure, she was diagnosed with oral candidiasis; and 24 months after the procedure she was diagnosed with Pneumocystis carinii pneumonia (PCP). The woman reported no other risk behaviors. Investigators found that the DNA structure of the HIV strain infecting the woman closely related to the strain infecting the dentist.

The CDC report also includes several factors, which have received limited attention in the popular press, that suggest infection may not have occurred during the procedure. The woman recalls that the dentist wore gloves and a mask during the procedure; no needlestick or other injury was noted in the dentist's records; and the dentist recalls no such injuries in the period after he was diagnosed with AIDS.

While the occurrence of pharyngitis is consistent with acute retroviral syndrome, which immediately follows HIV transmission and infection, the woman did not experience the other common symptoms of the syndrome: fever, rash, or generalized lymphadenopathy. Also, because aphthous ulcers are associated with more advanced HIV infection, and because only one percent of gay men and five percent of transfusion recipients progress to AIDS as quickly as the woman in this case, the woman may have been infected at a time before the dental procedure.

In addition, researchers have expressed concern about the usefulness of DNA sequence analysis since its reliability is not yet established, and since in this case there was no evidence the HIV strain the dentist and his patient shared was unique to them and not common to other HIV-infected people in their area.

Next Month

Gay communities have become so immersed in the AIDS epidemic that, for many gay men, a psychological relationship to HIV disease may be crucial to maintaining a gay identity. In the October issue of FOCUS, Walt Odets, PhD, a therapist in private practice in Berkeley, California, discusses the "homosexualization" of AIDS, how it results in a confusion of identity, and its significance in therapy.

Also in the October issue, Andrew Handler, MA, Director of Education at the AIDS Project Los Angeles, examines approaches to sexual negotiation among gay men.

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ISSN 1047-0719