

# SARS and the Effect of Chinese Herbs

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Chinese herbs and Traditional Chinese Medicines (TCM) have been used for thousands of years to assist in feeling better, more sexual vital, treating various illness, restoring the normal body functions and living longer<sup>[1]</sup>. They have been proved much effectiveness in the clinical practice. Chinese medicine focuses on the whole body and a complete recovery. Chinese doctors don't only use herbs to kill germs, they also use herbs to improve the function of the organs<sup>[2]</sup>. The best thing about Chinese medicine is that it has few side effects, unlike Western medicine, which is based on unnatural chemical compounds.

## The theory of Chinese Medicine: "yin" and "yang"

Chinese medicine is based on a theory that the world has two general forces: "yin" and "yang". When they are out of balance, people will get sick, the theory goes<sup>[1]</sup>. Based on the theory of TCM, the SARS is caused by some kind of heat toxin, which causes fever, sore throat, dry cough. Some Chinese herbs can remove the heat toxin from the body<sup>[3]</sup>.

Chinese medicine is based on the promotion of health and encompasses the entire body. Health is represented as a balance of "yin" and "yang", two forces that represent the bipolar manifestation of all things in nature. In the Oriental medicine a doctor pay more attention to the function of whole body when the patient is sick<sup>[4]</sup>. Think about this! The saying goes "an ounce of prevention is worth a pound of cure". There is relationship to the seasons for Balance of "yin" and "yang". People Enjoy the Spring's blossoms, Summer's freshly grass, Fall's crisp air, and Winter's Wonderful snow. How easily this can be done when using herbs correctly. When the herbs are combined to use, they can increase or promote therapeutic effectiveness. Chinese herbs have a synergistic influence that would be different or perhaps less potent if taken individually.

## Traditional Chinese Medicine and SARS

It is painful for a medical practitioner to see the dying that he/she cannot save. Practicing doctor most fear the dying person that he/she has no anyway to save, a wounded patient he/she cannot help.

In the past months, severe acute respiratory syn-

drome (SARS) has been running wild in China, putting unprecedented pressure upon the medical and health system. As we all have seen the spread of SARS in Asia, as well as, the rest of the world, it is imperative that everyone in the global community use tact and common sense when facing with such health crisis. The main symptoms of SARS are: fever (38°C/100°F or above), malaise, chills, headache, body ache, sore throat, coughing, shortness of breath and difficult breathing. There are also reports of SARS patients complaining of diarrhea and loss of appetite. The means of transmitting SARS known thus far is through droplets (saliva, nasal mucous, etc.) and direct contact. Front line medical personnel cared for SARS patients at the risk of their own health. Researchers worked day and night to unravel the mystery of the epidemic.

The efficacy of the use of TCM in the treatment of atypical pneumonia (SARS) has grabbed the interest of the World Health Organization(WHO) expert delegation visiting Beijing and other cities. After visiting the Guangdong Provincial TCM Hospital, the WHO delegation commended the experience of the hospital personnel in their use of TCM in treating SARS. The WHO delegates expressed the view that TCM has reduced the period of hospitalization, as well as, the curative time of patients suffering from the disease comparing with other places. In particular, they have provided valuable experience in the treatment of this disease.

In China, the method of herbal treatment on the basis of clinical pattern differentiation was adopted and excellent results were achieved. In addition, after the administration of the herbal preparation, those who had acute and extensive lung inflammation there was marked absorption of the inflammation effusion, which reduced some sequelae of the disease, for example, fibrosis.

Chinese herbs have been administered to some of the patients suffered from the SARS and taken by others who fear getting SARS. In some cases, the effect of the TCM has been proved in treating and preventing the SARS. In China, where the SARS epidemic began, medical experts from both western medicine and Chinese medicine have been working together to search a systematic prevention and treatment protocol for SARS.

Their herbal strategies are to fight viruses, regulate

immune system function, reduce the inflammatory response, alleviate immune system damage, and protect cellular function. The Chinese herbs bring down the fever, stop nausea, vomiting, and diarrhea, bring back appetite, alleviate tiredness and fatigue, and reduce symptoms of toxicity.

### **Principle of forming a prescription and the formulars for prevention of SARS**

By the principle of forming a prescription is mainly meant the compatible "Monarch, major official, adjuvant, and guiding" drugs in the prescription of TCM<sup>[1]</sup>. To form a prescription in accordance with this theory, it is necessary to make a clear distinction between the monarch drugs and the secondary ones and make them supplement and restrict one another, thereby, producing the most effective result in the treatment of diseases.

The courses the SARS was divided into four phases by the expert group, namely an initial phase, a medium phase, a peak phase, and a recuperation phase. The four phases have different symptoms, and patients in different phases should be treated by different formulas.

Treatment recipe of TCM varies, depending upon whether SARS is in early, middle, climactic, or late stage. The herbal recipe is intended to prevent viral pneumonia in general. The role of the formula is not to kill virus, but to regulate the balance of "yin and yang", increase immune function of the body, reduce symptoms toxicity to SARS. The patients may be stably passed peach stage of the disease and go into late stage. In the courses, It combines the theory of renowned TCM formulas, the master herbs are as known anti-viral effects. Plus addition other herbs which may cooperating effects with master herbs. In generally speaking, According to this theory the Chinese Medicine formula must be taken in the early stage of the disease. It can be taken as a powder mixed with hot water, or the raw herbs can be boiled into a tea. For example, 1. patients in the initial phase can take huo pu xia cen tang (soup of the leaf of wrinkled giant hyssop). 2. patients in the recuperation phase should take xia sen tang (adenophora root soup) or mai dong tang (dwarf lily turf tuber soup).

In addition to TCM formulas, according to the different symptoms in the separate phases, intravenous injections of compounds can be introduced, such as of yu xing cao zhen (cordate honttuynia), dan shen zhen (salvia mitiorrhiza), deng zhan xi xin zhen (fleabane), or shuang huang lian zhen (coptis chinensis franch). As to weaker patients, 5 to 10 grams of American ginseng root can also be taken per day.

TCM remedies are carried out based on symptoms

relating to each individual case. While SARS patients regularly have different clinical symptoms, such as different fever temperatures, and different length of the four phases. So, the released formula is just a general guide, instead of an all-purpose recipe for curing SARS, which could mislead doctors.

Many of the recent SARS related reports suggest that like many of the infectious diseases, those who have low immune system are more susceptible in getting ill. For those who does not experience any of the mentioned symptoms and are in good health but wish to strengthen their immune system could use "qi/chi" (energy) enhancing herbs<sup>[5]</sup>.

The University of Hong Kong, School of Chinese Medicine, has devised two herbal formulas for prevention of SARS. They say the staff at their clinics have been taking these herbal teas for more than a month and so far, none has been infected.

### **Following Prescriptions for prevention of SARS can be used.**

1. (for general patients)
  - Ban Lan Gen (Radix Isatidis seu Baphicacanthi) 12g
  - Jin Yin Hua (Flos Lonicerae Japonicae) 15g
  - Lian Qiao (Fructus Forsythiae Suspensae) 15g
  - Yi Yi Ren (Semen Coicis Lachryma-jobi) 15g
  - Tai Zi Shen (Radix Pseudostellariae Heterophyllae) 15g
  - Bai Zhu (Rhizoma Atractylodis Macrocephalae) 15g
  - Gan Cao (Radix Glycyrrhizae Uralensis) 9g
2. (for the patients in weak constitution ):
  - Huo Xiang Fu (Rhizoma Cyperi Rotundi) 15g
  - Pei Lan (Herba Eupatorii Fortunei) 9g
  - Jin Yin Hua (Flos Lonicerae Japonicae) 12g
  - Lian Qiao (Fructus Forsythiae Suspensae) 12g
  - Sang Ye (Folium Mori Albae) 15g
  - Ban Lan Gen (Radix Isatidis seu Baphicacanthi) 9g
  - Processed Bai Zhu (Rhizoma Atractylodis Macrocephalae) 15g
  - Yi Yi Ren (Semen Coicis Lachryma-jobi) 18g
  - Tai Zi Shen (Radix Pseudostellariae Heterophyllae) 18g
  - Gan Cao (Radix Glycyrrhizae Uralensis) 9g

The experts also warn us these herbal teas are prescribed for the purpose of preventing and enhancing body to contradict infection only. When you find any "infected" symptoms, such as having fever, abdominal pain, diarrhea, muscular pain, coughing and feeling cold, you should go to the hospitals to see doctor.

Though there is as yet no effective vaccine or antidote for the SARS virus, a TCM formula has seen good clinical responses from infected SARS patients, according to Chinese authorities. The continuous use of a TCM

remedy in Guangdong, the original area for the first reported SARS cases, has succeeded in a much lower death rate when compared to that of Beijing and Hong Kong.

In order to implement Guangdong's successful anti-SARS TCM formula nationwide, China's State Administration of Traditional Chinese Medicine (SATCM) issued a circular to assign the Guangdong Traditional Chinese Medicine Hospital to summarize the formula used, which has recently been released to the public on the front page of the domestic traditional Chinese medicine newspaper, *Zhongguo Zhongyiyao Bao*.

The official formulae was written under the supervision of a group of experts. The TCM remedy does not react to what kind of microbe the SARS virus is, or what kind of genetic effect the virus undertakes after entering a human body, it reacts directly to the symptoms that occur during the period the human body is infected with the virus. Although the goal of TCM remedy is not to kill the virus, but drive it away. That is why TCM can cure some severe illnesses, even it does not have killing virus.

#### Several herbs enhancing the Immune function

Some herb's use dates back to ancient China where it was used to cool an overheated system and treat infections<sup>[3,6,7,8,9]</sup>.

There are some reports researched, *Usnea* is a lichen--part fungus, part algae Usnic acid and its derivatives appear to be the main active constituents in *Usnea* spp. Usnic acid is believed to work against gram-positive bacteria by disrupting cell functions and thereby preventing adenosine triphosphate (ATP) formation and oxidative phosphorylation. Human cells are less permeable to usnic acid and so are not adversely affected<sup>[10]</sup>. Investigations also show that elderberry anthocyanins enhance immune function by boosting the production of cytokines<sup>[11]</sup>. These unique proteins act as messengers in the immune system to help regulate immune response, thus helping to defend the body against disease. Some studies on the anti-viral activity of elderberry extract found that in vitro elderberry extract reduced hemagglutination of red blood cells and inhibited replication of a number of strains of influenza A and B in cell cultures. In the same paper, administration of elderberry extract to 27 patients with influenza, shortened the duration of flu symptoms. In other study, elderberry extract inhibited replication of avian influenza virus in a human breast cancer cell line<sup>[12]</sup>. And in vitro studies conducted by the Southern Research Institute using elderberry extracts showed inhibition of herpes virus in cell cultures<sup>[13]</sup>.

In long clinical practices Woad Leaf ' (Da qing ye) has good activity on bacteria, such as *Staphylococcus*, *Pseudomonas* and coliform species. Though Laboratory investigations with a purified andrographis compound have shown no effects against the HIV virus. It is now thought that the mode of action of andrographis is via an effect on the immune response rather than specific antimicrobial activity. This effect on immune response is thought to be mediated via the adrenal glands.

Some Western-trained physicians believe there is something to learn from Chinese medicine, although many are dismissive. They argue that many cures have not passed on the foundation of the rigorous, scientific experiments. However some TCM really have given play to contribution to prevention and treating SARS. Especially 16 patients who suffered SARS were rescued with TCM only without any Western medicine. Their courses of the disease, peak phases were shorter and sequelae were slighter than that with Western medicine.

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