Traditional Chinese Medicine and Kampo: A Review from the Distant Past for the Future

F Yu1,4, T Takahashi1, J Moriya1, K Kawaura1, J Yamakawa1, K Kusaka1, T Itoh1, S Morimoto2, N Yamaguchi3 and T Kanda1

1Department of General Medicine, 2Department of Geriatric Medicine, and 3Department of Serology, Kanazawa Medical University, Ishikawa, Japan; 4Department of Traditional Chinese Medicine, Second Affiliated Hospital of China Medical University, Liaoning, China

Traditional Chinese medicine (TCM) is a complete system of healing that developed in China about 3000 years ago, and includes herbal medicine, acupuncture, moxibustion and massage, etc. In recent decades the use of TCM has become more popular in China and throughout the world. Traditional Japanese medicine has been used for 1500 years and includes Kampo-yaku (herbal medicine), acupuncture and acupressure. Kampo is now widely practised in Japan and is fully integrated into the modern health-care system. Kampo is based on TCM but has been adapted to Japanese culture. In this paper we review the history and characteristics of TCM and traditional Japanese medicine, i.e. the selection of traditional Chinese herbal medicine treatments based on differential diagnosis, and treatment formulations specific for the ‘Sho’ (the patient’s symptoms at a given moment) of Japanese Kampo – and look at the prospects for these forms of medicine.

KEY WORDS: Traditional Chinese medicine; Kampo; Selection of treatment based on the differential diagnosis; Formulation corresponding to Sho

Introduction

According to the definition given by the World Health Organization, traditional medicine includes a diversity of health practices, approaches, knowledge and beliefs and incorporates plant, animal and/or mineral-based medicines, spiritual therapies, manual techniques and exercises, which are applied singly or in combination to maintain well-being and to treat or prevent illness.1 The National Center for Complementary and Alternative Medicine, established at the National Institutes of Health in the USA in October 1998, re-categorized traditional medicine as complementary and alternative medicine.

Traditional Chinese medicine (TCM), one of the oldest continuously surviving traditions, originated as a means of maintaining good health and treating diseases in Chinese communities and has been adopted recently by other ethnic groups worldwide.2 TCM is a complete system of healing that developed in China about 3000 years ago and reached a coherent, codified form about 2000 years ago. It includes
herbal medicine, acupuncture, moxibustion and massage, etc. In recent decades, the use of TCM has become more popular in its own right and also as a complement to Western medicine throughout the world.\(^3\) TCM has been adopted in modified form in Far Eastern countries, such as Korea and Japan.\(^4\)

Traditional Japanese medicine has been used for 1500 years and includes Kampo, acupuncture and acupressure (Shiatsu). The word ‘Kampo’ (also written ‘Kanpo’) refers to the herbal system used in China that developed during the Han dynasty (between 206 BC and AD 220); today the word is also used to describe a unique system of Japanese herbal medicine. Kampo is widely practised in Japan, where it is fully integrated into the modern health-care system.

Throughout the history of TCM and Kampo, the basic theories and the methods of diagnosis and treatment have differed considerably from those of Western medicine. Western medicine uses disease-based diagnosis, while TCM and Kampo emphasize patient-based diagnosis.

Kampo is based on TCM but is adapted to Japanese culture. It can be characterized as a simplified, positivistic and pragmatic version of Chinese herbal medicine.\(^5\) The process of diagnosis and treatment differs between TCM and Kampo. In TCM the treatment is according to the differential diagnosis, whereas Kampo uses a treatment ‘formulation corresponding to Sho’; Sho is the patient’s symptoms at a given moment. In this paper we review these two forms of traditional medicine.

**Zheng and Sho**

‘Sho’ and ‘Zheng’ in Japanese and Chinese are derived from the same word, but over time they have come to acquire different meanings.

The disease, the symptom and the syndrome are the basic ideas of TCM. The meanings of ‘disease’ and ‘symptom’ are similar to those in Western medicine. Zheng, which can generally be translated as ‘syndrome’, is the basic unit and the key term in TCM theory, with a unique meaning. Zheng is the clinical outcome of the disease at any moment, and it generally encompasses the aetiology, pathology and disease location. After analysing the patient’s history and all the symptoms and signs, doctors using TCM recognize not only the disease, but also the more important Zheng. The same disease may have many different Zheng because of differences in symptoms and signs at different stages of the disease. On the other hand, different diseases may have the same Zheng, so that in TCM different diseases can sometimes be treated with the same formulation. The analysis of the patient’s history and all the symptoms and signs is referred to as the ‘differentiation of Zheng’. All treatments in TCM are based on the differentiation of Zheng and all formulae used for treatment are based upon this ‘treatment principle’ (for an example, see Fig. 1).

The concept of ‘Sho’ comes from the Zheng of TCM, but is simpler because of the simplified Kampo theory. Sho is the patient’s symptoms at any moment, recognized in terms of Qi (well-being, energy, illness, vigour), Blood and Water; the eight categories (Yin–Yang, hypofunction and hyperfunction, heat and cold, superficies and interior); the five parenchymatous viscera; and the six stages of the disease (Taiyang, Shaoyang, Yangming, Taiyin, Shaoyin, Jueyin).\(^6,7\) Sho is broadly defined as Kampo diagnosis in the epistemic framework of the Kampo view of illness, and provides information on which to base the treatment.\(^6,7\) Recently there has been a trend to name the Sho in terms of a formula, such as ‘Kakkonto Sho’, which denotes treatment of the patient’s symptoms with Kakkonto.
FIGURE 1: Example of the process of diagnosis and treatment in traditional Chinese medicine and Kampo: the common cold.

Traditional Chinese medicine:
- ‘selection of treatment based on the differential diagnosis’

Kampo:
- ‘formulation corresponding to Sho’

The symptoms, signs and the patient’s history by using the four diagnostic methods of observation – hearing and smelling, enquiry and palpation

Sudden onset, sore throat, fever, chilliness, headache, nasal discharge and/or slight cough

Tongue: thin, yellow

Pulse: floating

Aetiology: wind heat

Disease location: lung and superficial area

Pathology: wind heat impairs lung descending function

Traditional Chinese medicine disease:
- Gan Mao

Zheng: superficial wind heat Zheng

Treatment principle: promote lung function, expel wind heat and relieve superficial area

Formula: Yin Qiao San, Sang Ju Yin

Qi, Blood, Water

Eight categories:
- hyperfunction/cold/superficies

Five parenchymatous viscera: lung

Six stages of the disease: Taiyang

Sho: Taiyang-Maoto Sho

Formula: Maoto, Kakkonto

FIGURE 1: Example of the process of diagnosis and treatment in traditional Chinese medicine and Kampo: the common cold.
‘Selection of treatment based on the differential diagnosis’ and the ‘formulation corresponding to Sho’

In TCM, after having recognized the particular Zheng, the Chinese practitioner then confirms the ‘treatment principle’. According to this principle, it is possible to choose formulae for treatment and adjust the herbs used in the formula, or make a new formulation adapted to the patient’s particular condition. This step is called the ‘selection of treatment’ in TCM. The process from diagnosis to treatment in TCM is called the ‘selection of treatment based on the differential diagnosis’ (Fig. 1).

In Kampo medicine, the process of diagnosis and treatment is called ‘formulation corresponding to Sho’. When treating a patient, Japanese practitioners recognize the Kampo diagnosis (Sho) and choose the most suitable formula. The relationship between these steps is regarded as similar to that of lock and key. Each pathological condition is thus related to its prescription. Japanese practitioners generally tend to check the symptoms and name of the disease, and choose Kampo drugs (Fig. 1).

We will now explain the development of the different methods of diagnosis and treatment in TCM and Kampo.

Origin and development of traditional Chinese medicine and Kampo

During the development of TCM, ancient authorities, well-known doctors, researchers and philosophers inherited their predecessor’s writings, tested their techniques, and in turn added their own experience and knowledge, which they handed on to posterity. By about 2000 years ago TCM had been codified into a system; the major classic medical manuscripts and drug books were completed at this time, and these are still used today.

In the sixth century AD Japan imported the culture of Chinese medicine, mainly via the Korean Peninsula. During the period between the seventh century and the Edo Period (1603 – 1867), the latest medicine from China was always taken up eagerly in Japan; it was accepted immediately and used virtually without modification. This imported Chinese medicine was modified to meet local needs and became known as Kampo. In the Meiji period (1868 – 1912) the government adopted Western medicine, and during this period of repression Kampo medicine became divided into three parts: herbal medicine; acupuncture and acupressure. Today ‘Kampo’ refers only to herbal medicine.

TCM has never stopped developing. However, the new theory of TCM that developed after the Meiji period was not accepted in Japan because of the policies of the Meiji government. The idea of activating the circulation of the blood and clearing away static blood was promoted by Wang Qing-ren (1768 – 1831) in the Qing dynasty (1644 – 1911). The theory of Wen Bing Xue (meaning ‘Warm Disease’ [febrile disease]), the most modern of the four areas of classical study, is regarded as the most important development in TCM since the theory described in the book Shang Han Za Bing Lun (AD 190).

After World War II, Kampo medicine ushered in a new age in Japan. In 1967, the health insurance authorities began reimbursement for four Kampo drug formulae prescribed by doctors. Reimbursement was available for 147 formulae in 1987 and about 200 formulae in 2000. Thereafter, Kampo spread steadily and rapidly.
Basic theory

TCM has developed over 3000 years. The tradition has been well conserved and the system of recognition/healing has become comprehensive. TCM can be characterized as holistic, with emphasis on the integrity of the human body and the close relationship between the human body and its social and natural environment. It focuses on health maintenance, and in the treatment of disease it emphasizes the enhancement of the body’s resistance to disease. The theoretical basis of TCM originates from the ancient Chinese philosophy of Yin–Yang and the five elements. The major TCM theories are covered systematically, including Qi, Blood, Body Fluids, Essence, Shen, the Zang Fu internal organ theory (Zangxiang), aetiology and pathogenesis, as well as the principles of the prevention and treatment of diseases.

As mentioned above, the theory of TCM was unified in China. However, a unified theory of Japanese traditional medicine has not been established in Japan. Kampo medicine is simpler and more informal than TCM and emphasizes practice rather than theory. The main theories of Kampo are the three substances (Qi, Blood, Water), the eight categories, the five parenchymatous viscera and the six stages of disease. Among the reasons for the simplification of Kampo may be the policies of the Meiji government. Theories such as the Wen Bing Xue theory and the idea of activating the blood circulation and clearing away static blood were not accepted after this period in Japan. Another reason is that a theory based on the treatment theory of Shang Han Lun (included in the book Shang Han Za Bing Lun, called Sho Kan Ron in Japanese) was followed by the classical school that gained power in the Edo era, a school that still constitutes the mainstream in Japanese Kampo medicine.

Formulae

Most of the formulae used in Japan come from Shang Han Za Bing Lun. In China there is a broader range of sources, including medical manuscripts and well-known formulae.

In TCM there is a large number of excellent classic formulae. Herb formulae (typically 10 – 15 herbs) are prescribed in such a way that each herb is used to its greatest advantage, which improves the results of the treatment and reduces any adverse effects of the other herbs. Doctors usually change the formulae according to changes in the patient’s condition and the treatment principle. This makes it possible to treat complicated diseases and to carry out patient-based treatment, in which the doctor thinks about the patient’s particular characteristics, such as their age, general health and constitution, and the social and natural setting. It also contributes to the making of entirely new formulations.

The herb formulae prescribed by the doctor may take different forms in China. Many of them are decoctions, while others are powdered herbs, pills and tablets, and so on. There is also the ready-to-use form, which is different from that used in Japan. It is based on a single herb rather than a fixed formula, and the doctor can adjust the formula easily.

The Shang Han Lun and Jin Gui Yao Lue (both are part of Shang Han Za Bing Lun) formulae are among the principal focal points of Kampo medicine. Today, many Kampo practitioners use these books and prescribe their formulae. The herbs in these formulae (typically five to nine herbs) are categorized mainly in modern texts as surface-relieving herbs, heat-clearing herbs, moisture-draining herbs and tonics.

Formal recognition by the Japanese Ministry of Health has strongly influenced the practice of Kampo during the past 30 years. As a result, Japanese practitioners...
focus their attention on about 200 formulae. Most of the modern formulae are of the ready-to-use type produced in factories.

**Education**

According to the Chinese State Administration of TCM, there were 34 universities or colleges for TCM and pharmacology in 2003. These universities or colleges provide 14 professional programmes for undergraduates. Twenty-three of the schools provide programmes for master’s degrees and 13 provide doctorate programmes. In China, every Western medical school contains a department of TCM.

On the other hand, in Japan there is no systematic programme exclusively teaching Kampo medicine and no special license course for Kampo physicians. Under the laws governing medical practitioners, only allopathic (conventional) physicians may practise medicine, including Kampo medicine. However, there are no restrictions on the types of medical procedure allopathic physicians may use in their practice.

A national survey in 1998 reported that 18 medical schools had either an elective or a required class on complementary and alternative medicine – mainly Kampo medicine and/or acupuncture.

Recently, more medical universities have begun to provide education in Kampo medicine along with Western medicine.

**Evidence-based medicine**

The clinical efficacies of Western medicine and TCM have been assessed in widely different ways in the past. Evidence-based medicine is the integration of the best research evidence with clinical expertise and patient values. Large randomized, controlled trials (RCTs) are generally accepted as the gold standard. Although it is difficult to carry out RCTs because of the changeability of Zheng, scientific studies on the efficacy and safety of TCM using the RCT method are increasing in number in China.

In the 1970s, departments of oriental medicine were established in teaching hospitals for the training of physicians. In these institutions, clinical research was undertaken on how to use traditional Kampo formulae for the treatment of various health problems. The research models used in Japan for studying Kampo are all Western, and the approach is based on conventional Western disease nosology and on conventional immunology. The results of various clinical and laboratory studies have led to expansion of the use of traditional formulae in doctors’ offices and hospitals in the mainstream of Japanese medicine.

**Discussion**

Some ideas have penetrated deeply during the formation and development of TCM. The first is the idea of the ‘whole’, which focuses on the integrity of the human body and the close relationship between the human body and its social and natural environment. The second is the idea of ‘dynamic balance’, which emphasizes movement in the integrity and changeability of the Zheng. The third, and most important, idea is the ‘selection of treatment based on the differential diagnosis’.

Kampo medicine accepts the ‘whole’ idea taken from TCM, and emphasizes the relationship between the human body and its social and natural environment. It regards the disease state as an imbalanced state, and the process of Kampo treatment is intended to correct this imbalance or to help the individual patient return to the equilibrium state. The Zheng is changeable during the disease process. These ideas are similar to those of TCM. The symptom–formula correspondence is regarded as another characteristic in which Kampo medicine differs from TCM.
As drugs covered by the National Health Insurance System (NHIS) in Japan can only be prescribed by medical doctors trained in Western medicine, there is a tendency for them to use Kampo formulae without paying much attention to the TCM interpretations of the symptoms of the patient. Therefore, the mainstream of Kampo relies not so much on the rigorous interpretation of the disease state in terms of the basic TCM concepts as on the direct practical effects of the formula itself. Terasawa pointed out that ‘In Japan, it is not possible for a physician to use TCM’s system of three elements/eight categories in order for his or her Kampo formulae to be covered by NHIS’. Kampo medicine places more emphasis on the results of clinical and laboratory studies. However, all the clinical and laboratory studies are carried out on the basis of the disease alone. Whereas the Zheng is changeable and the same disease may have different Zheng, it is impossible to reveal the entire Zheng from the results of the clinical and laboratory studies. Sometimes the doctor cannot find a suitable key to the particular lock because of the limited number of formulae covered by the NHIS.

In the West, the practice of Chinese herbal medicine has been strongly influenced by Kampo. One reason is that Kampo was introduced before the licensing of acupuncture was established, and a second reason is the convenience of the ready-to-use formulae. A third reason may
be that the idea of the symptom–formula correspondence in Kampo is easier to master than TCM’s idea of the ‘selection of treatment based on the differential diagnosis’. Another reason, in our opinion, is that Kampo used with evidence-based medicine is easily accepted in the West because the research models and methods used in Japan for studying Kampo are thoroughly Western. The practice of TCM with evidence-based medicine in China is more difficult than in Japan because of the large number of formulae used and the individualization of treatment.

Traditional medicine has faced the crisis and challenge of historical continuity and modernization. Its practitioners in China and Japan have worked hard to find the best approach. One approach is to combine the Zheng with the disease. In some diseases, such as fatty liver, the patient has no special symptoms and signs. In other conditions, such as early cancer, there are also no special symptoms and signs – or there may be only general discomfort – and the therapeutic result will differ according to whether the Zheng or the disease is considered. On the other hand, if the emphasis is placed heavily upon the disease, it will be difficult to tailor the treatment to the particular patient. This makes a TCM or Kampo medicine merely a kind of combined herb drug, like any Western drug, and TCM will have no appeal. Combining the differentiation of Zheng with the diagnosis of the disease would achieve the best therapeutic effect.

A second approach is to combine traditional experience with modern evidence. In TCM, there is a history of more than 3000 years of unique experience and there are hundreds of excellent classic formulae. Because of its unique system and the methods it uses for diagnosis and treatment, TCM does not find ready acceptance in the West. The demonstration of statistically significant effects seems necessary for the improvement and acceptance of TCM. Modern drugs are good for curing diseases with a clear cause and pathology but not for curing diseases due to multiple factors, and these have become more common. TCM is not a perfect way of identifying specific pathogens and pathological changes. It seeks disturbances in the human body by analysing all symptoms and signs, and this make it possible to treat diseases due to multiple pathogenic factors and some diseases that are not very well understood. This is the advantage and unique appeal of TCM and Kampo.

The third approach is the establishment of an animal model that has the Zheng of the human condition in addition to showing a model form of the disease. In TCM and Kampo practice, it sometimes happens that a formula that has been shown to be effective in animal experiments or RCTs does not achieve the desired effect in humans, and sometimes even produces the converse effect. One important reason for this is the existence of Zheng. Therefore, the establishment of a model with the Zheng seems to be necessary and important in TCM and Kampo studies.

We need to keep alive the history of TCM and Kampo and at the same time make advances in the practice of these forms of medicine. Although the practice of Kampo in Japan is different from that of TCM in China, all efforts that we can make will aid the development of TCM and Kampo.

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References

Address for correspondence
Dr T Kanda
Department of General Medicine, Kanazawa Medical University, 1-1 Daigaku, Uchinada-machi, Kahoku-gun, Ishikawa 920-0293, Japan.
E-mail: kandat@kanazawa-med.ac.jp