

## Conference Report

### *The First Japan-Germany Joint Symposium on Kampo*

#### *Medicine and Acupuncture*

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Opening remarks by Dr. Yoshiharu Motoo

### Introduction

The First Japan-Germany Joint Symposium on Kampo Medicine and Acupuncture was held on April 15, 2016 in Okinawa, Japan. This symposium was aimed to promote mutual understanding of Japanese traditional medicine, Kampo, and acupuncture. Although this was a semi-closed symposium, there were over 50 observers in addition to the designated discussants (18 from Japan and 9 from Germany).

The symposium was started with opening remarks by Dr. Yoshiharu Motoo and Dr. Heidrun Reissenweber-Hewel at 14:00.



Dr. Heidrun Reissenweber-Hewel

### Session 1.

Originally, Dr. Masayuki Kashima was supposed to be the first speaker, but he was late due to a big earthquake in Kumamoto on the previous day. Therefore, the original Session 2 was moved to Session 1, and Dr. Toshiaki Makino addressed a keynote lecture, entitled “Concept on active

ingredients of crude drugs used in Kampo



Medicine”.



Commentator: Dr. Hans Rausch

## Session

### 2.

Dr. Masayuki Kashima addressed his keynote lecture, entitled “Structure and characteristics of Kampo Medicine”. He arrived at the Okinawa Convention Center during the Session 1, after taking care of people suffering from the earthquake at the emergency room of Kumamoto Red Cross Hospital without sleep. He explained the characteristics of Kampo Medicine showing some examples. His perspectives on “Hosho-sotai (Formula-Diagnosis Correspondence)” clearly showed the structure of



Chair: Dr. Sven Schroeder

Commentators: Dr. Kuchta (left) and Dr. Cameron (right)

Keynote lecture by Dr. Masayuki Kashima

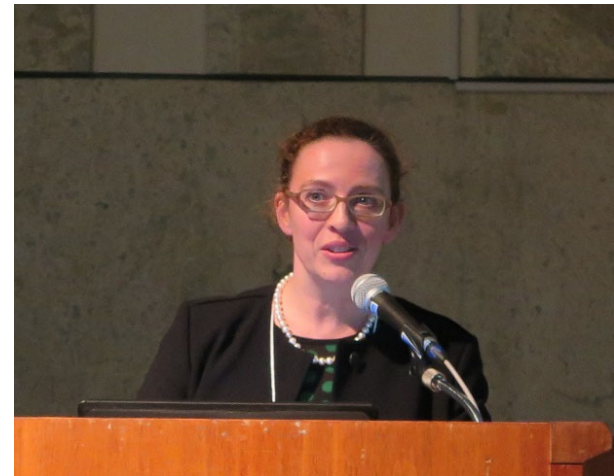
Kampo Medicine.



Chair: Dr. Klaus Hambrecht

Dr. Klaus Hambrecht, chair of this session, mentioned the differences in clinical effects between single herbs and formulas.

Dr. Kostner, one of the



commentators of this session, asked to Dr. Kashima whether he had difficulty in using Kampo Medicine and modern medicine at the same time. Dr. Kashima answered “It is as if I use my right brain (hemisphere) and the left one, integrating the all items as a whole”. Another commentator, Dr. Ulrich Eberhard, talked about the history of clinical practice of Kampo Medicine in Japan. During the general discussion, several participants repeated the beneficial role of Kampo Medicine as unitary medical system.



**Session**

**3.**

Dr.  
Claudia  
Witt



addressed her keynote lecture, entitled “Clinical research on acupuncture – What can we learn from the efficacy effectiveness gap?”. She provided an overview about the evidence from clinical research perspective. Dr. Witt addressed factors that moderate the treatment outcome, discussed advantages and limitations of previous studies and made suggestions for future research. Furthermore, she introduced comparative effectiveness research (CER), showing examples from acupuncture research. Her talk greatly impressed the audience with its high-level contents based on evidence as well as her wonderful English.

Commentator: Dr. Hitoshi Yamashita

Dr. Denichiro Yamaoka summarized this session, together with his perspectives on the history of Japanese acupuncture.



Dr. Yamashita pointed out that the differences in cultural or contextual factors among countries affect the interpretation of “effectiveness” of traditional medicine.

Keynote lecture by Dr. Claudia M. Witt



Commentator: Dr. Takashi Seki

traditional medicine, especially acupuncture, to face evidence-based medicine in terms of efficacy and effectiveness. Her presentation was very instructive and favorable to Japanese acupuncturists.

Thus, the three sessions were successfully completed. The symposium was closed by remarks by Dr. Motoo and Dr. Reissenweber-Hewel at 18:00.

### Acknowledgments

We would like to thank Goto College of Medical Arts and Sciences for the support of this symposium.

### Discussions

The symposium was well-controlled and discussions were fruitful.

Dr. Makino's keynote lecture at the Session 1, characteristics of Japanese Kampo products for ethical use and how to evaluate their quality assurance would have been quite fresh to Japanese clinicians, and also have been very helpful to German researchers. Utilization of the characteristic chemical compounds in the crude drug as the marker compounds to identify the origin and to maintain the quality of the crude drugs seemed understandable to German doctors.

Dr. Kashima's presentation was epoch-making, showing the comprehensive framework covering Japanese Kampo Medicine and Traditional Chinese Medicine (TCM). He suggested the methodology to understand Traditional Medicines originating from ancient Chinese Medicine, answering the questions from all over the world "what is the difference between Kampo Medicine and TCM?".

Dr. Witt's lecture was important for researchers of

## ABSTRACT

### Session 1.

#### Concept on active ingredients of crude drugs used in Kampo medicine

**Toshiaki Makino, PhD**

**Professor**

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Since ancient times, human beings have used natural substances as crude drugs to treat various diseases. In modern pharmaceutical sciences, chemists have isolated the active ingredients (compounds) from these natural substances used as medicines, and these ingredients (compounds) have developed as chemical drugs. For example, morphine, a chemical compound that has 285.34 g/mol molecular weight, was isolated from opium poppy in 1803, and has been used as narcotic drug to reduce severe pain in cancer patients. Digoxin, another compound that has 780.938 g/mol molecular weight, was isolated from the leaves of *Digitalis purpurea* (foxglove) in 1875, and has been used as a cardiotonic drug to prevent e atrial fibrillation and atrial flutter. Instead of the use of active ingredients (compounds) as chemical drugs, original natural substances have not been used as crude drugs. We can not find opium or digitalis leaf but can find morphine or digoxin In the present pharmacopoeia.

However, in traditional medicine, we are still using crude drugs as medicines. Although ephedrine was isolated from the stem of *Ephedra sinica* (*Ephedra Herba*, 麻黄) in 1885 and has been used as bronchodilator in modern medicine, we have still been using *Ephedra Herba* as a crude drug in traditional Oriental medicine to dispel the exterior evil in body surface with pungent taste and warm nature (辛温解表薬). In the textbook of pharmacognosy (生薬学), *Ephedra Herba* is used as a bronchodilator, and its active ingredient is ephedrine, since pharmacognosy belongs to modern science (Western medicine). Indeed, ephedrine is one of the active ingredients (compounds) of *Ephedra Herba* to treat bronchial asthma, *Ephedra Herba* may contain other active ingredients than ephedrine to dispel the exterior evil in body surface. In another example, we knows the active ingredient of Rhubarb (the rhizome of *Rheum palmatum*, 大黄) exhibiting laxative is sennoside A, but in traditional Oriental medicine, 大黄 is used not only as a laxative but we use to activate blood to dissipate blood stasis (活血化瘀) and to remove interior heat (清热). When we use Rhubarb to dissipate blood stasis, we can recognize that sennoside A is not the active ingredient but the causative agent of diarrhea as an adverse effect.

When we use the term “active ingredients”, the meaning of the term should contain both information of the names of chemical compounds and some efficacies. In usual, the pharmacognosists find the active ingredients of crude drug extracts by activity-guided fractionation using some pharmacological experiments. Although we can confirm the pharmacology

in modern

medicine (薬理), such as antipyretic, cardiogenic, bronchodilator, or laxative, by conducting pharmacological experiments, it is very difficult to confirm the pharmacology in traditional medicine (薬能), such as dispelling the exterior evil or activating blood and dissipating blood stasis, or removing interior heat, by experimental pharmacology, because the experimental animals do not exhibit about their symptoms in traditional medicine, and we can not measure or analyze the term “evil” or the efficacies by mechanical instruments. Unless the philosophy of the pharmacology in traditional medicine is translated into modern science, we can not use the term “active ingredient” of crude drugs in traditional medicine.

Why we have to learn the ingredients (chemical compounds) in crude drugs? The reason is to maintain the quality of crude drugs. Since crude drugs have higher values of medicinal efficacies than foods in natural substances, and since general people can not recognize or identify the quality of crude drugs, it is easier to distribute the counterfeits or shoddy goods. Indeed, crude drugs are derived from natural substances that usually have large individual differences and diverseness. As the drug, the pharmacists have to prepare crude drugs with the stable qualities, and the individual differences of crude drugs should be regulated in the minimum levels all of the time. Then, we can use the characteristic chemical compounds in the crude drug as the marker compounds to identify the origin or to maintain the quality of the crude drug. Though sennoside A is not the active ingredient of Rhubarb in traditional medicine, this compound is one of the characteristics of Rhubarb and can be used as the marker of Rhubarb, i.e. the stable content of sennoside A among a number of batches of Rhubarb can warrant the quality of Rhubarb, though we do not know the genuine active ingredient of Rhubarb in traditional medicine.

In summary, in the textbook of pharmacognosy or Materia Medica describing crude drugs or herbal medicines from natural substances, the chemical compounds in crude drugs are not always described as the active ingredients. Especially in traditional Oriental medicine, we can not determine the active ingredients in crude drugs. We have to recognize the differences of the concepts of active ingredients and marker compounds in pharmacognosy, and the most of ingredients of crude drugs described in the textbook of traditional Oriental medicine are not the active ingredients but the marker compounds.

## Session 2.

### Structure and characteristics of Kampo Medicine

Masayuki Kashima, MD

*Department of General Internal Medicine, Japanese Red Cross Kumamoto Hospital*

emphasized of Kampo medicine are HOUSYOU-SOUTAI (方証相對) system (prescription directly links to symptoms and signs), more detailed analysis of pathophysiology and medical action in traditional Chinese medical words than Chinese, and the Unitary medical service system that a doctor having one license uses Kampo and Western medicine. HOUSYOU-SOUTAI system which was established by Toudo Yoshimas(吉益東洞) in the Edo period, is that the prescription is directly leaded from symptoms and sings, without using theory of etiology, pathophysiology or pharmacology. If the arbitrary combination choice was from a plurality of symptoms and signs, there are the large amounts of choices of prescription in this way. To solve the problem, the abdominal finding is placed to the key diagnostic valuable sign. The abdominal examination (腹診) has been developed highly. In the complicated or including a lot of systems disorder case, when there are some choices of prescription, the method is frequently used that the classifications which are consisted of some symptoms and signs, are linked to some prescriptions, are intervened between clinical findings and prescriptions, and help to choice the prescription. In this method, using some classifications, it is able to narrow downs the choice of prescription belonging to plural classifications. HOUSYOU-SOUTAI system let to accumulate experiences limited number prescriptions therapy the various conditions, discover the new using way of the prescription unlimited by traditional theory, prompt to verify the traditional Chinese medicine's theories. There is another the way of thinking in Kampo medicine, which is more detailed analysis of pathophysiology and medical action in traditional Chinese medical words than Chinese, being located in the opposite pole of HOUSYOU-SOUTAI.

Traditional Chinese medicine has the character summarizing and explaining, the concrete biological phenomenon by the highly abstractive concepts, for example, In-Yan (陰陽), surface-inside (表裏) etc. This type thinking is difficult to understand for not only another culture area member feeling about disregarding the abstraction level, but also Japanese who had long term to acquire Chinese culture. The way of thinking in Japan which uses traditional Chinese medical theory shows more concretely “where is”, “what is”, “how to” play the role closely connected to each symptoms in the pathophysiology or the pharmacology than Chinese and points out the contradict points of the modern Chinese medicine. These Kampo styles play a good navigator of learning the traditional Eastern oriental medicine for not Chinese culture area people. Kampo medicine which is based on these styles is practiced by the doctor who acquired the the Western medicine in the Unitary medical system. Today, over 90% Japanese doctor use the Kampo prescription based on the wide range thinking styles form only the western medicine style diagnosis to the Kampo theory, therefore, the Kampo medicine is the most established alternative and complemental medicine. In addition, the Kampo medicine used by a doctor, can play the interactive role of the Western medicine beyond only an alternative or complemental role, and provides the tight-knit medical system.



**Session 3.****Clinical research on acupuncture – What can we learn from the efficacy effectiveness gap?****Claudia M. Witt, MD, MBA****Professor and Chair***Institute for Complementary and Integrative Medicine, University of Zurich and University Hospital Zurich, Switzerland, claudia.witt@uzh.ch*

To date, most clinical studies on acupuncture have focused of the specific effects of single treatment components such as point location, needling and needle stimulation.

However, acupuncture can be viewed as a multi-component treatment that also includes many other aspects such as palpation of the points and patient doctor interaction. Furthermore, most clinical trials included highly selected patients and applied standardized treatment protocols with the aim to exclude as much bias as possible. These studies have contributed important information on the efficacy of acupuncture; however, their results are only marginally helpful to understand the value of acupuncture in a more usual care context. The current movement to Comparative Effectiveness Research (CER) in conventional medicine fosters the generation and synthesis of evidence that compares the benefits and harms of different treatments in a more typical setting. CER has considerable potential to help health care providers as well as patients and clinicians to choose among currently available therapeutic options including acupuncture. CER compares two or more health interventions in order to determine which of these options works best for which types of patients in settings that are similar to those in which the intervention will be used in practice. This evidence, more generalizable than the evidence generated by traditional randomized controlled trials, is better suited to inform real-world care decisions. CER uses a broad spectrum of methodologies including randomized pragmatic trials. Creating a modern, strategic research framework that takes into account the stakeholders' perspectives, follows a patient-centered approach, uses mixed methods research methodologies, and combines modern scientific techniques such as systems-biology-based 'omics technologies would be beneficial for bridging the gap between traditional medicine theory and modern clinical research methodologies.

In most areas of integrative medicine data on comparative effectiveness is scarce, but available acupuncture research already contributes to CER evidence. This presentation will provide an overview about the evidence from clinical research perspective. It will address factors that moderate the treatment outcome, discuss advantages and limitations of previous studies and make suggestions for future research. Furthermore it will introduce CER, show examples from acupuncture research and make suggestions for future research.

## Literature

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