Integration of Traditional Chinese Medicine and modern medicine promotes the unification of human medicine

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Abstract
There are two mutually supportive systems in medical profession: modern medicines and traditional medicine. The current status is that although the modern medicine occupies the major position in healthcare system, the therapeutic effect of traditional medicines should not be omitted. If all of them merged and unified as one, it will be beneficial to the development of human medicine. In this paper, the integration of Traditional Chinese Medicine (TCM) and modern medicine was exemplified to elucidate the mutual complements, mutual benefits of traditional medicines and modern medicine to maintain the unification of human medicine via the development of molecular biology, cytology etc. We believed that TCM theory may share the same mechanism with western medicine at some extent which need to be explored in the future research. In our point of view, although the road may twist and turn, the results are promising.

Keywords
Traditional Chinese Medicine, Modern Medicine, Human Medicine

Introduction

Due to the distinctive geographical and historical factors, the development of medicine in the world is not in the same speed and form, which bring up the coexist of modern medicine and traditional medicines as well as the confrontation of eastern medicine (Traditional Chinese Medicine (TCM)) and west medicine (1). Consequently, it is time to re-evaluate those medicines to make a unified medical system and standardize the therapeutic approaches. In order to reach this goal, the advantages of the traditional medicines should be elucidated in advance.

Actually, under special condition, the traditional medicines even play a leading role. E.g. the wide application of Chinese herbs with anti-viral effect for the prevention and treatment of severe acute aspiratory syndrome (SARS) in china (2). Barrier between the traditional medicines and modern medicine derives from the different visual angle on human body.
However, it should be admitted that some nomenclatures and conceptions in TCM such as “Qi”, “Meridian” are very difficult to be understood by westerns just because lack of morphological evidences (3). Therefore, seeking common ground while reserving differences is the guideline to deal with the relationship between TCM and western medicine. In the following content, TMC will be exemplified to elucidate the potential integration of traditional medicines and modern medicine.

The hypothesis

In this paper, we hypothesized that integration of TCM and modern medicine promotes the unification of human medicine.

The evaluation of the hypothesis

It will be a long time to realize what we have mentioned above, while we can image the prospect of the final combination of traditional medicines and western medicine. The TCM will be exemplified to perform the unification of human medicines in the following content.

For TCM, useful cases recorded in the medical books may be treated as the “Medline” database concerning ancient Chinese medical researches. The following advantages of TCM should be mentioned:

Firstly, TCM may provide a large resource of therapeutic experience. Billions of people (mainly Chinese people) have been underwent TCM therapy since ancient era, providing a great amount of clinical data. Consequently, new modern medical treatment strategies for such intractable diseases as acquired immune deficiency syndrome (AIDS) (4), systemic lupus erythematosus (SLE) (5)etc may be inspired from this resource.

Secondly, traditional methods in TCM still work in clinic. E.g. the application of splint fixation for long bone fracture may stabilize the broken site efficiently with the advantage of light as well as easy observation and adjustment compared with gypsum fixation (6).

Thirdly, the Chinese herb is a huge resource for new drug exploration. It is well known that the isolation of the effective monomers in Chinese herb is much easier and cheaper than the synthesis of new chemical drugs (7). Furthermore, to a certain kind of disease, targeted Chinese herb isolation can be performed under the guideline of TCM theory. The discovery of artemisinin for the treatment of malaria is an excellent example (8). To some extent, it should be a new strategy for drug exploration under the guidance of evidence-based medical research.

The fourth, as to some diseases, although TCM may not exert major therapeutic function, it may be treated as an adjuvant method. E.g. The acupuncture and massage have been widely used in the treatment of such chronic disease as rheumatoid arthritis, ankylosing spondilitis (9)etc.

At last, the theory of TCM may affect the development of modern medicine. The Chinese practitioners pay more attention to the entirety of therapy among which the relationship between the environment and the body is greatly emphasized. It is interesting that the researches on intracellular signal transduction pathway have gone into the systemic biology stage, which coincides with the theory of “unity” in TCM. Another good example is the “Yin-Yang” balance theory and the physical functions of sympathetic nerve vs parasympathetic nerve (10), as well as the intracellular level of Cyclic Adenosine Monophosphate (cAMP) vs Cyclic Guanosine Monophosphate (cGMP) (11). The mutual relationships of inter-linkages and antagonism maintain the physiological homeostasis of our body.

For another side, the new techniques of modern medicine may lead to the innovation of TCM. A typical example is the application of electric acupuncture (12), which developed in China as an extension of hand manipulation of acupuncture needles, and the following advantages are obtained.

1. Unlike hand manipulation of acupuncture, the electric acupuncture provide the patient the amount of stimulation needed and help reduce total treatment time by providing the continued stimulus.
2. It can produce a stronger stimulation for difficult cases of neuralgia or paralysis without causing tissue damage.
3. Easier to control the frequency of the stimulus and the amount of stimulus than hand manipulation.

More innovations of TCM are under processing. Actually, many efforts have been exerted in the process of integrating TCM with modern medicine in China. In fact a large number of quotas have been assigned to this field among a series of foundations such as “National Nature Science Foundation”, “Chinese National Programs for High Technology Research and Development (863 programs)”, “Chinese National Programs for Fundamental Research and Development (973 programs)”etc. Furthermore more, a special journal named “Journal of Chinese Integrative Medicine” has been established which mainly focused on achievements in integrative medicine to promote the academic exchanges between Chinese scholars and scholars abroad. Moreover, specialized committee for integration of TCM and western medicine has been established to facilitate the management of such research and a series of international meetings are held to even expand the influence of such studies as well.

Discussion

The announcement of combination of TCM and western medicine is not uncommon in China, while to our current knowledge, it is the first time to
confirm a uniform human medicine via combination of traditional medicines and western medicine. What we should do further is to detect the fusion point of these two approaches, in terms of therapeutic mechanism or form. Other traditional medicines can be integrated in this system based on the protocols made by combination of TCM and western medicine.

In summary, the exploration of TCM may bring light to the development of the modern medicine and should be treated as an effective branch of human medicine. On the other side, the modern medicine may bring new energy to TCM, no matter as to the amelioration of basic theory or methodological improvement (Figure 1). Just as 3-D Computerized Tomography (CT) reconstruction, which derived from the overlay of data from different sections, the overlay of TCM and modern medicine may bring even significant outcomes to form unified human medical system finally. It is promising that in the future there will be no so called “TCM” and “Western medicine”, in the world ,only one kind of medicine is functional, which is called “human medicine”.

Overview Box

First Question: What do we already know about the subject?
The concept of combination of traditional medicines and western medicine is not uncommon. Many papers and international meetings concerning this subject have been performed. E.g. In China, the combination of TCM and western medicine has been widely accepted and applied in clinics.

Second Question: What does your proposed theory add to the current knowledge available, and what benefits does it have?
To our current knowledge, it is the first time that the unification of human medicine is raised. Our hypothesis will benefit for the application of combined medicine in clinics.

Third question: Among numerous available studies, what special further study is proposed for testing the idea?
It will be a long time to obtain what we have mentioned in this paper, but we can image the prospect that no traditional medicines and western medicine will be available in the future, except “human medicine”. 
Figure 1. The diagrammatic description of the forthcoming unification of human medicine exemplified by integration of Traditional Chinese Medicine and modern medicine.

References