

The Core Mechanism of Traditional Medicine Is the Rational and Effective Use of Potassium Ions

Jiapei Dai

Wuhan Institute for Neuroscience and Neuroengineering, South-Central Minzu University, Wuhan, China

Correspondence to: Jiapei Dai, jdai@mail.scuec.edu.cn

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ABSTRACT

The use of traditional medicines including natural drugs, especially traditional Chinese medicine (TCM), plays an important role in the prevention and treatment of human diseases; however, so far, the mechanism of its prevention, health care and treatment of diseases is unclear. Here, I propose that the core mechanism of traditional medicines is to correct the relative deficiency of potassium ions in body and at the same time improve the utilization efficiency of potassium ions, so as to improve or restore cell functions in organs and tissues, and let the body return to a normal state. In order to achieve such a core goal, the therapeutic effect of natural drugs has an important relationship with the rational matching of prescriptions and the quality of drugs, with particular emphasis on the concentrations and quantum energy levels of potassium ions or their compounds in the formula. The understanding of the core effect of potassium in natural drugs has a specific and important guiding role for the artificial cultivation and rational use of natural drugs. Moreover, these ideas may also provide an important theoretical basis for the development of modern agriculture and medicine, and the rational and comprehensive utilization of potassium resources.

1. INTRODUCTION

The use of traditional medicines, especially traditional Chinese medicines (TCM), plays an important role in the prevention and treatment of human diseases [1-8]; however, so far, the mechanism of its prevention, health care and treatment of diseases is unclear. Some folk treatment methods, such as ethnic drugs, even have many mysterious colors [9]. Although the modern sciences and technologies for the study of natural drugs have provided a lot of important information, however, it is still unable to build a core mechanism to explain the role of traditional medicines in the prevention, health care and treatment of human diseases. Therefore, to explore and establish new theoretical mechanisms is an important sci-

tific issue in the study and development of traditional medicines. Here, I propose that supplementing and regulating the relative deficiency of potassium ions in different organs, tissues and tissue cells of the body with traditional medicines play a core role in the prevention and treatment of human diseases.

2. A CORE ROLE OF NATURAL DRUGS IS TO CORRECT THE RELATIVE DEFICIENCY OF POTASSIUM IONS IN THE BODY

The action mechanisms of modern drugs are often involved in action targets based on the simulation of interaction between molecules, and therefore, it is a basic mean to replace the ligands that may be reduced in the body, or activate and block the targeted molecules of cells. Natural drugs come from microorganisms, animals, plants and minerals in nature, and the thoughts for the prevention, health care and treatment of diseases by using natural drugs are based on the change characteristics of individual conditions, and also emphasize the relationship between the body conditions and the laws of natural changes in the context of doctor-patient communication, such as holism, five elements and Yin-Yang, in particular in TCM [10-13]. Understanding the core relationship between the western medicine and traditional medicine has also been an important goal of modern medical sciences [14-28]. In another paper, I have clarified a core idea that the adaptation of organisms to the circulation of natural potassium resources and its rational and effective use are important guarantees for biodiversity on the earth [29]. The disruption of the potassium resource circulation balance by different factors, such as climate change, would affect the survival of natural organisms and also have a certain impact on human beings. Under the natural living conditions, human beings obtain potassium ions needed by the body through food, but due to the lack of food or insufficient potassium content in food, the human body may present relative deficiency of potassium, which can weaken the body's resistance to the natural existing pathogenic microorganisms and result in diseases. In the process of adapting to the natural environment, human beings have realized that some plants, tissues of animals and minerals that are different from conventional food can treat and prevent human discomforts and diseases, and finally summarized and established some ideas or laws through repeated observations and experiences. However, in such a practice, the effects for the prevention and treatment of discomforts and diseases are often related to the personal judgment of medical practitioners (doctors) and the differences of individual patients, and are also related to the reasonable matching of selected natural drugs and the source of drugs. The process of treatment is usually a test process, and the results may only be within a small probability range if such treatment ways are evaluated by using modern scientific methods, that is to say, the results of treatment are difficult to standardize. In other papers, I have elaborated the relationship between the potassium/sodium (K^+/Na^+) system and the physiological functions of the body, and especially proposed that the relative deficiency of the potassium ions in organs, tissues and cells of the body may lead to the pathophysiological changes and diseases [30-33], which provides a new idea for understanding the core action mechanism of natural drugs.

It can be reasonably speculated that natural drugs must grow or live in the places where are rich in potassium resources. Therefore, the microorganisms such as fungi, plants (various herbs), some traditionally medicinal animal organs and tissues such as deer antler and donkey skin or natural minerals such as cinnabar must contain abundant potassium. It has been explained in my other papers that the main reason causing human diseases is the reduced potassium intake from the diets, which leads to the relative deficiency of potassium in some organs, tissues and cells [29-32]. Because everyone's living habits and food sources are different, it is usually a bit of difficult to correct the deficiency of potassium in the body through ordinary diet, in particular when food is shortage, while these natural medicinal plants that are rich in potassium can provide an important and alternative way to supplement potassium. Animal organs containing abundant potassium also have the same or better effects, and some minerals not only contain high concentration of potassium, but also may have other micro-elements that are beneficial to the body. It should be emphasized that some minerals may also contain toxic ingredients that are harmful to the body. Therefore, in the process of treatment, these natural drugs can only be reasonably applied and evaluated according to the experience of doctors because the degree of potassium deficiency in the patient's

body is not clear.

3. THE EFFICACY OF NATURAL DRUGS IS RELATED TO THE ABUNDANCE AND QUANTUM EFFICIENCY OF POTASSIUM

The place where natural medicinal plants grow is often not suitable for the growth of ordinary edible plants. The possible explanation is that these medicinal plants have unique characteristics in the accumulation of potassium in the environment, avoiding the competition between plants for absorbing natural existing potassium. Plateau and mountain areas where are rich in potassium resources may be unfavorable to the growth and reproduction of common edible animals and plants due to special climatic environment. Therefore, some medicinal animals and plants that can live or grow in such places must obtain enough potassium to support their development and growth, and as a result their organs, tissues and cells are richer in potassium compared with other common edible animals and plants.

In addition, since the places where these animals and plants live or grow are very different from other places in terms of air, humidity and natural sunlight, the potassium ions gathered by these animals and plants may also be different at the quantum energy levels, which may involve quantum biological effects [34-38]. The underlying meaning of this explanation is that the quantum energy level of atom in different potassium ions or potassium ion compounds are different, which may also have different functional effects. Moreover, the establishment of specific quantum energy levels for potassium ions or potassium ion compounds may be a slow process. On the one hand, it is related to the potassium resources in the soil itself, which requires a stable process for many years. On the other hand, the quantum energy levels of potassium ions are needed to change again in the process of acquiring and storing potassium ions through the cells of medicinal animals and plants.

The natural drugs are usually needed pretreatment, such as steaming, boiling, scalding, and mixed boiling, before the application to patients, which may also be another process of changing the quantum energy levels of potassium ions and other components. For example, the mixed boiling could not only change the quantum energy levels of potassium ions through the exchange of quantum energy between the drug components, but also better meet the needs of different organs, tissues and cells in individuals since the quantum energy levels of active potassium ions or potassium ion compounds in organs, tissues and cells of human body may be different too. During the use of natural drugs, different medicinal materials and prescriptions will be tested and determined according to the dialectical relationship between the changes in patients' symptoms, so as to meet individual needs and supplement potassium ions at different quantum energy levels. This may be the quantum biological mechanism of traditional medicine, especially for TCMs, and many traditional prescriptions could be cited to prove such statements.

4. THE CURATIVE EFFECT OF PRESCRIPTION IS RELATED TO THE SUPPLEMENT OF POTASSIUM ION AND THE IMPROVEMENT OF ITS EFFICIENCY

Prescription is the most commonly treatment method used in TCM. As explained above, the core mechanism of traditional medicines is to directly or indirectly correct the relative deficiency of potassium in the body. Through drinking, the prescription and decoction containing high concentration of potassium can directly supplement the relatively deficiency of potassium ions in the body through the absorption of the digestive tract.

Another important mechanism may be to improve the use efficiency of potassium ions in different organs, tissues and cells of the body through other medicinal ingredients in the prescription or to change the relative imbalance of potassium ion storage between various organs, tissues and cells. For example, the recovery of normal function of cells could be ensured by increasing the accumulation of potassium ions from blood and body fluid into cells with relatively deficiency of potassium ions. Such an action may be involved in regulating the function and abundance of Na, K-ATPase in various tissues and cells related to the processes of gene and protein expression [39-62]. Using modern advanced technical means, it has been demonstrated that the different components of natural drugs could have different effects on different cells.

Based on such an action mechanism of natural drugs and using relevant prescriptions for treatment, it is very effective when the body does not show obvious relative deficiency of potassium because this physiological change can be recovered through the reasonable redistribution of potassium ions stored in the body, which may have a similar effect to the physical exercise. Therefore, it could be concluded that most of the traditional prescriptions are prepared based on these two aspects of mechanisms, which can give an explanation why the lack of a key ingredient medicine in some prescriptions could not achieve obvious effect during the application since the fact that this medicine may contain abundant potassium or can significantly improve the effective utilization of potassium ions in the specific organs, tissues and cells.

In addition, it is reasonable to emphasize the important role of the meridian flow in TCMs. The modern biological explanation of the meridional flow is related to the change of biological rhythm. The physiological processes of different organs, tissues and cells in the human body show rhythm changes which repeat approximately every 24 hours, or months, seasons and years. Therefore, combining the physiological function and activity characteristics of different organs and tissues can make the prescription more efficient by supplementing potassium and allocating potassium storage of the body in the process of using TCMs.

5. ACUPUNCTURE AND MOXIBUSTION ARE RELATED TO THE REGULATION OF POTASSIUM STORAGE, REDISTRIBUTION AND UTILIZATION EFFICIENCY

The therapeutic strategies of acupuncture and moxibustion follow the traditional meridian principle, but the exact mechanism is still unclear so far. The therapeutic goal of acupuncture and moxibustion is to dredge the specific meridians existing in the body. At present, it is thought that this is mainly accomplished through the principles of physics. Based on the theoretical explanation of the relationship between the relative deficiency of potassium ions and functional changes and diseases in the body, I believe that electricity, heat or light energy play two key roles during the treatment. On the one hand, they regulate the storage and redistribution of potassium in organs, tissues and cells; on the other hand, the treatment could improve the efficiency of the use of potassium ions by cells through increasing the quantum energy level of potassium ions or enhancing and balancing the activities of Na, K-ATPase on the cell membrane [63-66].

6. CONCLUSION AND SIGNIFICANCE

It can be understood that the core idea of TCM is to correct the relative deficiency of potassium ions in the body, and at the same time to improve the efficiency of the use of potassium ions, so as to improve or restore the function of cells to the normal state of the body. In order to achieve such a core goal, the therapeutic effect of natural drugs has an important relationship with the rational matching of prescriptions and the quality of drugs. It is certain that Chinese herbal medicines obtained through large-scale artificial cultivation or breeding have completely different effects from wild medicinal materials in terms of drug efficacy. Such problems have indeed been found in the process of application, but the core problem is not understood. Therefore, the understanding of the core effect of potassium in natural drugs has a specific and important guiding role for the artificial cultivation and rational use of TCMs, and the ideas raised in this paper may also provide an important theoretical basis for the development of modern agriculture and medicine and the rational and comprehensive utilization of potassium resources.

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CONFLICTS OF INTEREST

The author declares no competing financial interests.

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