Current Research Situation of Multipurpose Use of Traditional Chinese Medicine

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Abstract. The inherent characteristics of traditional Chinese medicine are multi components and multi targets, which lays a theoretical foundation for the multipurpose use of traditional Chinese Medicine. The compatibility of traditional Chinese medicine may produce new curative effect and enlarge its application foundation. A variety of effective ingredients in the single herb, Chinese herbal compound and proprietary Chinese medicine are the material basis of multi target effect of Chinese medicine. There are differences in the treatment of diseases due to different flavor and meridian tropism, different routes of administration and different medicinal sites. This paper on the basis of our laboratory using traditional Chinese medicine, analysis of current research situation of multipurpose use of Chinese Medicine, to explore its application in the treatment of diseases.

Introduction

With the further study of diseases and drugs, the scholars' understanding of the effective ingredients and therapeutic targets of traditional Chinese medicine has been changing constantly. Modern medicine is devoted to the development of specific therapeutic agents for a particular disease. The single component, single target and highly selective drugs have a clear mechanism of action and can be combined with target proteins efficiently and play a therapeutic role. This is the advantage of modern medicine in the treatment of diseases, which can make patients easy to take and accept, and reduce the financial burden. But there are many chronic diseases have complicated causes and pathogenesis, such as tumor, chronic nephritis, hypertension, coronary heart disease, depression and other mental factors. Multi component, multi target and low selectivity drugs have more advantages in the treatment of diseases[1]. The inherent characteristics of traditional Chinese medicine are multi components and multi targets, which determines the characteristics and advantages of traditional Chinese medicine is used for multiple purposes in the treatment of disease. All medicines of cold and hot, warm and cool for four, also known as the four properties; acid, sweet, bitter, pungent and salty also known as the four five tastes. "The Yellow Emperors Internal Classic" is the earliest recorded four properties and five tastes. Different flavor and meridian tropism is the theoretical basis for the treatment of different diseases with Chinese Medicine. Moreover, the different routes of administration, the use of different dosage forms, as well as the patient's condition and physical condition, will lead to different effects of drugs in the course of disease treatment. It is in view of the above situation according to the present situation of medication in the laboratory, the application of a drug in the clinical characteristics of traditional Chinese medicine in the application process for analysis and discussion.

Laboratory Research Status of Multipurpose Use of Traditional Chinese Medicine

Chinese medicine has the characteristics of multiple components and multiple targets, which is the biggest difference between Chinese medicine and Western Medicine. Many modern chronic diseases cannot be cured completely by single factor or single pathway. They are both time-consuming and laborious. Western medicine in the treatment of diseases at the same time, the toxic side effects are also plagued patients, affecting rehabilitation. Chinese medicine has many
advantages, such as multi components, multiple targets, and low toxic side effects, so promote the progress of pharmacological research on "one herb, one thing and many uses". In this paper, we summarize the present situation of laboratory research on the use of Chinese herbal medicine in the laboratory.

Epimedium is warm in nature, tastes pungent and sweet, channel tropism liver and kidney. It is a commonly used traditional Chinese medicine for tonifying kidney and Yang. It is mainly used in the treatment of male diseases. Modern studies show that the traditional Chinese medicine contains epimedium total flavonoids, volatile oils, polysaccharides and other active ingredients, has the pharmacological effects of enhance sexual function in male rats with kidney yang deficiency, improve the immune function of animals, inhibition of tumor cell proliferation, anti-aging and antioxidant properties for aging model of D- galactose replication mice, reduce the blood glucose of diabetic mice and anti-inflammatory, antidepressant and so on[2]. Salvia miltiorrhiza is cold in nature, tastes slightly bitter, channel tropism liver and heart, containing terpenoids, phenolic acids, trace elements and other active ingredients. Pharmacological study shows that, Salvia miltiorrhiza can protect rat hypoxic ischemic brain damage of nerve cells, induced stem cell differentiation of rats with cerebral ischemia or ovariecctomized rats, protect large mouse heart and brain vessel, reduce blood glucose in DM model rats, improving cerebral ischemia reperfusion injury in rats as well as anti-tumor, antifibrosis and other pharma- cological effects[3]. Salvia miltiorrhiza Bunge has the pharmacological effects of anti - acute hypoxia, antibacterial, anti-tumor, inhibiting the accumulation of platelets in pigs and rabbits, and protecting myocardial ischemia in rabbits with heart infarction [4]. Mentha haplocalyx is cold in nature, tastes pungent, channel tropism lung and liver, contains volatile oils, flavonoids, organic acids, anthraquinones, and others. Laboratory studies have shown that mint can protect the liver of acute liver injury mice, increase the bile secretion of rats, antimouse fertility, and promote the transdermal absorption of drugs in rats and other pharmacological effects. In addition, peppermint oil has obvious protective and inhibitory effects on ear swelling mice and foot swelling rats, and shows strong anti-inflammatory and analgesic pharmacological effects[5,6].

Hawthorn is warm in nature, tastes sour and sweet, channel tropism spleen, stomach and liver, containing flavonoids, terpenoids, organic acids and others, is the commonly used Chinese Medicine of supplement the spleen and fortify the stomach.

Hawthorn has the pharmacological effects of protect cardiovascular and brain tissue of rats, enhance the antioxidant ability of liver in mice, reduce rat blood pressure, inhibit tumor cell growth in vitro and lead it to apoptosis, hypolipidemic, lowering blood pressure, antibacterial[7]. Circium japonicum is cold in nature, tastes bitter and sweet, channel tropism heart. It contains volatile oil, flavonoids, propargyl alcohol and other active ingredients, is a common hemostatic in clinic. Pharmacological studies show that the Circium japonicum can reduce the dog, cat, rabbit blood pressure, reduce blood pressure of renal hypertensive rats, inhibition of leukemic cells, gastric cancer, liver cancer, and induces apoptosis, enhance the immunity of Hep tumor bearing mice and inhibition the frog heart in vitro. The study also found that the hemostatic speed and effect of carbon fried Circium japonicum were stronger than that of raw products[8,9].

Clinical Application of Multipurpose Use of Traditional Chinese Medicine

Although the traditional Chinese medicine has many components and multiple target characteristics, it can be used in the treatment of different types of diseases, but it is not entirely satisfactory for some chronic and easy to relapse diseases. Some scholars in the study and exploration of the process of continuous treatment of previous experience, innovative applications of new prescription, not only laid a solid theoretical foundation for multipurpose use of traditional Chinese medicine, but also provides a new way for the treatment of Difficult miscellaneous diseases. Modern medical research shows that Chinese medicine not only can be used alone, but also compatible used in the treatment of diseases. The combination of Chinese herbal medicine pieces, Chinese medicine
prescription and Chinese patent medicine has made great contributions to the progress of Medicine. In this paper, a series of review and analysis are made on the current situation of clinical research on the use of Chinese herbal medicine in combination with the documents.

Raw barley sprout is neutral in nature, tastes sweet, channel tropism spleen and stomach, used for the treatment of breast and liver qi stagnation or syndrome of disharmony between liver and stomach indigestion, the nephrasthenia heat is especially suitable. Stir-baked barley sprout is warm in nature and smell fragrant, used for the treatment of indigestion, women weaning. Burnt barley sprout is warm in nature, tastes slightly astringent, used for the treatment of indigestion or diarrhea. The granules made up by Barley sprout, Caulis Spatholobi, hawthorn pith, for 860 cases of breast hyperplasia patients, the total effective rate was 99.3%. The granules made up by Barley sprout, Atractylodes macrocephala, Polygonatum sibiricum, rhizoma curcumae and Rhizoma Curcumae, for the treatment of 203 cases of zinc deficiency in children, the effective rate was 98.5%. In addition, Barley sprout as a medicine and food homologous products, Plantain Barley sprout soup can be used for amenorrhea, lactation syndrome diet, side effects are low, patient compliance is strong; Barley sprout roots can be developed as protein resources, processed into soy sauce, malt liquor and other varieties of food[10,11]. Eucommia ulmoides leaves is warm in nature, taste slightly pungent, channel tropism liver and kidney. Chinese patent medicine Eucommia ulmoides leaves and Eucommia bark slice were used for the treatment of hypertension patients, and the effective rates were above 76%. Eucommia ulmoides capsule has protective effect on the kidney when it is used in the treatment of diabetic patients. The processed products of salt fried eucommia leaf Decoction oral inhibition of threatened abortion, for the baby. The leaves of Eucommia ulmoides are compatible with Lycium barbarum, Radix Polygoni Multiflori, Radix Rehmanniae and Radix Rehmanniae preparata, oral administration is used to nourish the body and strengthen the muscles and bones. In addition, Eucommia ulmoides leaves can also be applied to diet therapy, made into herbal tea, porridge, beverages, health care products and so on[12].

The clinical application shows that peppermint extract is an effective drug in the treatment of irritable bowel syndrome (IBS), which can significantly improve the symptoms of patients. Compound Menthol Injection anesthesia of Lumbar Acupoints on anorectal diseases, safe and effective. The borneol Mint soup has the function of sterilization and regulating the vagina environment, and can improve the clinical symptoms of all kinds of vaginitis patients and Compound menthol nasal drops is effective in the treatment of atrophic rhinitis. Mint as a kind of medicine and food homologous products, mint porridge, mint tofu soup, Mint Cake and Mint Milk Tea, etc., can be used for the treatment and prevention of disease[13]. Leek seed is warm in nature, taste slightly sweet, contains alkaloids, steroidal saponins, volatile oil and other active ingredients. Leek seed decoction can cure intractable hiccup; Rexun oral Decoction and gargling with teeth moth; With the small shrimp or chicken or psoralen, sangpiaoxiao etc. in the treatment of kidney deficiency impotence, enuresis, frequency of micturition; Make the vinegar fried leek seed into leek seed honey ointment in the treatment of kidney deficiency and abdominal cold, spermatorrhea, premature ejaculation, leucorrhoea too much; Leek seed and raspberry, dodder and other compatibility, can treat women sexual desire low, tired of sexual intercourse and so on. In addition, leek seed porridge, tea, wine, lamb leek seeds can be used as food to eat, but also can be used for the treatment and prevention of disease[14].

Summary

Chinese medicine multi-component, multi-channel, multi-level and multifunction target is the theoretical basis of multipurpose use of traditional Chinese medicine, Chinese medicine not only can be taken orally, but also can be applied externally. Many chronic diseases involve many different levels of organism, organs and tissues, which are caused by many factors, and many pathways are abnormal conditions. To some extent, the traditional Chinese medicine can ease the process of simple factors and inhibit its deterioration. But in order to cure the complex diseases
thoroughly, we need to use the traditional Chinese medicine which involves many convenient and multiple routes. Traditional Chinese medicine prescription compatibility rule is the embodiment of different directions in the cure of diseases by Chinese herbal medicine. Study on the innovation of Chinese medicine used for multiple purposes not only promote the inheritance and development of traditional Chinese medicine, but also brought the gospel for the majority of patients. Progress in laboratory research of multipurpose use of traditional Chinese medicine show that Chinese medicine can have several or even more than ten kinds of pharmacological action, such as anti-aging, antioxidant, anti-inflammatory, antitumor, liver and gallbladder, protect neurons, reducing blood fat, lowering blood pressure, antidepression, antifertility and miscarriage, improve sexual function, enhance immunity, cooling blood and hemostasis and others. In the process of clinical application of Chinese medicine used for multiple purposes, it has definite curative effect on chronic diseases with frequent complications, complicated etiology and long treatment time.

Although Chinese herbal medicine has many characteristics of flavor and tropism, it does not contain the main aspects of the four flavor and five flavors of Chinese Medicine. In order to cope with the treatment of disease and the adaptability of patients, the traditional drugs from single flavor to more flavor. In the course of the development of traditional Chinese medicine from single flavor to more flavor, the unexpected situation has been constantly appearing, and the existing problems have become increasingly prominent. There are incompatibility between many traditional Chinese medicines, it will increase the toxicity of drugs and cause fatal harm to the patients. We emphasize the traditional Chinese medicine used for multiple cases, will lead to misunderstanding for patients, think of Chinese medicine since a multi-component and multi-target characteristics and refused to accept the multi drug treatment at the same time. Or think that multi flavor, taste, function similar, Chinese medicine combination will increase efficacy, blindness taking many drugs at the same time, resulting in a sharp increase in side effects. We subconsciously believe that Chinese medicine is non-toxic and has a low side effect. Many Chinese herbal medicines lack modern instructions or indicate "attention Taboos". At this stage, only engaged in Chinese medicine related workers will be understand the description of disease in Chinese Medical Language, and other industry personnel cannot understand the relevant instructions of traditional Chinese Medicine.

Traditional Chinese medicine has the characteristics of a multi-purpose, but need under the guidance of the basic theory of traditional Chinese medicine dialectical treatment to correct play its pharmacological effect. The popularization of TCM language, the modernization of traditional Chinese medicine instructions will be decisive factor in clinical application, the patients will only choose to believe on the basis of understanding. Let the patient understand Chinese medicine since it has the characteristics of a multi-purpose, it can regulate or interfere with body sick or normal tissues, prevent the patient from blindly taking his medicine. The incompatibility of drugs will be compiled into related books to guide the clinical staff or drug store staff to correctly use drugs and sell drugs. The characteristics of traditional Chinese medicine used for multiple purposes is not clear as Western medicine, the multiple roles of Chinese medicine in the treatment of diseases should be clarified. The treatment of traditional Chinese medicine not only involves blindly, but also involves many kinds of compatibility application and the development and utilization of Chinese patent medicines. Based on the guidance of the basic theory of Traditional Chinese medicine, carry out a multi-purpose application of Chinese medicine, should be the focus of the study of traditional Chinese medicine.

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References


