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Editorial Traditional medicine is the valuable resource for global health



The dramatic changes brought about by the Coronavirus Disease 2019 (COVID-19) pandemic have prompted us to reassess the current global healthcare system. As we seek to identify solutions and formulate a vaccine, it is also an opportune time to consider resources that are already accessible, namely traditional medicine with a long history in dealing with contagious diseases. In this respect, Chinese medicine, with its millennia-old un-interrupted history of country-wide practice offers valuable tools.¹

After the outbreak of the COVID-19 epidemic in the city of Wuhan, the Chinese government organized five batches of national Chinese medicine experts to Wuhan to treat COVID-19 patients, with total of 773 Chinese medicine professionals.² As the leading institution for the national Chinese medicine team, Beijing University of Chinese Medicine sent a team of 46 Chinese medicine professionals to join the national effort to contain the epidemic. During their stay in Wuhan for two months, our medical team used a comprehensive and integrated approach of Chinese medicine along with conventional medicine to treat COVID-19 patients and achieved impressive results.

The way of Chinese medicine in addressing a novel pathogen, such as COVID-19, rests on its systematic theory, developed based on over 3000 years of medical experience.³ Doctors of Chinese medicine identify general pathogenesis routes of diseases by analyzing the clinical symptoms of patients, without knowing the exact nature of the new pathogens. Once the path of the disease is found, doctors can formulate comprehensive treatment plans, including herbal prescriptions, acupuncture, and moxibustion.^{4,5}

In the treatment of novel infectious diseases such as COVID-19, Chinese medicine emphasizes a holistic view. Through external diagnosis, such as pulse, face, tongue and body temperature, Chinese medicine doctors can identify the location of the disease inside the body and proceed to implement therapeutic Chinese medicine approaches to adjust the body's ecosystem, particularly the space where the virus resides. At this point, the pathogens, such as this new virus, may have not left the body. However, by modifying the ecosystem of the body, the Chinese medicine approach can turn the ecosystem of the human body into an "unfriendly" space in which the pathogens may not be able to propagate, nor survive long, and cannot spread to other organs and tissues. These treatments boost the body's immune system to fight the virus and win the battle.

From the clinical indicators, particularly blood cells count and various immunological indicators, the immune response of patients infected with COVID-19 is significantly enhanced, which is called cytokine storm.^{6,7} The cytokine storm may lead to the damage to

the infected organs, such as the lungs in the case of COVID-19.⁸ If the cytokine storm is not controlled immediately, systemic organ failure will soon follow, since the deteriorating force of excessiveinflammation is systemic within the human body. In this sense, balancing excessive-inflammation to normal level is the key to success in treating COVID-19. Chinese medicine treatments with herbs, acupuncture, and moxibustion, are mainly used to regulate the immune system to achieve the balance of yin and yang.

In addition, Chinese medicine believes that there is interaction between the digestive and immune systems. Protecting the digestive track of patients with COVID-19 helps prevent severe or fatal cases.^{9,10} The herbal prescriptions of traditional Chinese medicine can regulate and restore the health of digestive tract, and increase the chances of survival.^{11,12}

Another vital factor, as evidenced by our university medical team's clinical experience in treating COVID-19 patients in intensive care units in Wuhan, is individual based combination therapy. For each patient, particularly the severe and critical cases in the intensive care unit, our university medical team designed personalized prescriptions of Chinese herbs and other therapeutic methods to supplement conventional drugs, based on the individualized diagnosis. Individual based therapy is a long-term tradition of Chinese medicine, its role in fighting contagious diseases has been well documented in classic books of traditional Chinese medicine throughout Chinese history.

The last element to consider from the perspective of Chinese medicine is to well manage so-called "recovered" COVID-19 patients discharged from the hospital. Although, prior to being discharged, the virus test results of the patients are negative, based on the nucleic acid and immune detection, and there is no fever or other abnormal physiological problems, they are still very weak and need a long time to recover. In this regard, patients who are considered "recovered" by conventional medicine are not completely recovered in the view of Chinese medicine. The unique theory and practice of Chinese medicine serves to regulate the physiological and immunological system, so as to restore the vitality and immunity of the patients post- COVID-19 infection, thereby reducing the possibility of contracting the virus again.^{13,14}

As the clinical benefits of traditional Chinese medicine and many other traditional medicines are gradually explored, they should become an indispensable part of the medical care methods to improve the health level of people all over the world. There are many traditional or indigenous medical systems in the world with a long history of practice, and all of them contain the valuable experiences that each civilization has accumulated in their struggles against various diseases. Today, as we face the challenge of COVID-19, we reflect on our medical system and find that some

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almost-forgotten traditional medical knowledge may provide us with valuable resources and solutions.^{15,16} We strongly believe that joint global efforts to revitalize traditional medical knowledge will certainly lead to effective and innovative solutions to meet future challenges in human health and wellness, regardless of culture, religion, and racial differences.¹⁷

Declaration of competing interest

None declared.

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