

# *Research on the influence of integrated Traditional Chinese and Western medicine treatment on COVID-19*

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**Abstract:** In the prevention and control of novel coronavirus virus, the choice of therapeutic drugs has a great influence on the treatment results, and the combination of traditional Chinese and Western medicine has shown a good therapeutic effect in the prevention and control of the epidemic. From the curative effect of traditional Chinese and western medicine in the treatment of COVID-19, the advantages and disadvantages of the two drugs and their development prospects were discussed respectively. Combined with the current development of the two, the way of combination and new medical characteristics are pointed out. After combining the advantages of the two treatments, the therapeutic effect is remarkable in clinical manifestations.

## **1. Background**

COVID-19 is a newly emerging acute respiratory infectious disease. It was named "COVID-19" by WHO on February 11, 2020. Like "ATYPICAL pneumonia" and Middle East Respiratory Syndrome (MERS), COVID-19 is caused by coronavirus infection<sup>[1]</sup>. The outbreak of SARS virus in 2003 put people all over the world through a severe test. It was a victory, but it came at a terrible price. For the COVID-19 outbreak 17 years later, they are completely different viruses, although they come from the same source, have similar genetic sequences and work in a similar way. The Novel coronavirus has a stronger penetration and deformation capacity, but a lower fatality rate.

## **2. Novel Coronavirus characteristics and clinical manifestations**

Novel coronavirus transmission is mainly in the form of respiratory droplets, but also indirect transmission of infection through hand touch. In more enclosed environments, prolonged exposure to high concentrations of aerosols can also be transmitted by aerosols. The elderly and patients with underlying chronic diseases progress rapidly and have a poor prognosis after infection. After infection, the main clinical manifestations include fever, dry cough, fatigue, and a few patients have nasal congestion, runny nose, sore throat and diarrhea. Patients with mild symptoms had fever, mild fatigue and no symptoms of pneumonia after infection. In severe cases, however, dyspnea or hypoxemia may occur within a week of the infection's onset. Patients with severe infections can rapidly progress to acute respiratory distress syndrome, septic shock, or multiple organ failure. Mild patients may have fever after infection, with a body temperature exceeding 37°C, while severe and critical patients may

have low fever, or even no obvious symptoms of fever. The incubation period of the virus is 1-14 days, with most being 3-7 days<sup>[3]</sup>. As the Novel Coronavirus is an RNA virus, it is not easy to find a drug.

### 3. Western medicine treatment plan

Western medicine mainly adopts symptomatic treatment. For the general type of patients and severe, critical type of patients, the treatment plan is naturally different. The common type of patients were treated with antiviral therapy by monitoring their blood routine, urine routine, C-reactive protein (CRP), biochemical indicators, etc. Drugs such as interferon alpha, lopinavir/ritonavir, and arbidol have also been included in the treatment protocol as effective drugs. For severe and critically ill patients, attention must be paid to the occurrence of complications. Of course, plasma from those who have recovered at some risk can be used to treat those with more advanced, severe and critical conditions. Critically ill patients with high inflammatory response can be effectively treated by in vitro blood purification technology<sup>[2]</sup>.

In addition to the treatment of patients, prevention of disease is also very important. To fight against virus invasion and improve the human body's own immunity is a top priority. Western medicine believes that the human body has three immune lines, namely skin, mucous membrane, non-specific immunity and specific immunity. Skin and mucosal cells are mainly connected by collagen, which enhances the skin's defense against external pathogens. Increasing collagen production is crucial, and vitamin C, as a reducing agent, can do that.

For nonspecific immunity, white blood cells, especially macrophages, are involved. The human body contains some free radicals, with oxidation reaction, will affect the normal operation of white blood cells and other immune cells. The reducing agent provided by vitamin C is the solution to this situation. For specific immunity, T cells, B cells generated by lymphocytes and dendritic cells generated by lymphoid stem cells play a decisive role in specific immunity of human body. The number and activation degree of these three types of cells directly determine the efficiency of searching corresponding T cells and B cells. The faster the search, the faster the body can produce antibodies, the better and faster to reduce the damage caused by inflammation. Zinc, a trace element, can significantly increase the number of lymphocytes and immunoglobulin, thereby improving the immune capacity of the human body.

### 4. TCM treatment plan

Since ancient times, there have been many plagues, and TCM has accumulated many methods and experiences in the treatment of diseases. Chinese medicine is different from western medicine. Chinese medicine can take medicine according to the symptoms of patients. Appropriate Chinese medicine treatment can effectively strengthen the human body's ability to fight viruses. TCM does not study pathogens, but the human body. It sees man as a balanced system, and disequilibrium is the emergence of disease. Use medicine, acupuncture, massage, diet and other methods to restore balance to the body.

In terms of treatment, COVID-19 is a plague in Chinese medicine, and its venom usually enters the body through the mouth and nose. After the virus invades the human body through the respiratory tract, the patient often presents with fever, cough, which is the manifestation of lung symptoms; Diarrhea and fatigue are symptoms of the spleen. In Traditional Chinese medicine, the sense of smell is mainly lung opening in the nose, taste is mainly spleen opening in the mouth. Loss of taste and smell is one of the early symptoms in some COVID-19 patients, which can also identify lesions in the lungs and spleen. Through clinical observation and summary, it was found that the patients were mainly wet poison in the early stage, with a tendency to heat in the middle stage, and exhausted in the late stage.

When it comes to improving immunity, TCM has a completely different idea from western medicine. TCM values the internal balance of the human body. In the prevention of infectious diseases, TCM attaches great importance to the internal cause and how to adjust the physique of susceptible people. When the body has positive breath power, it is less likely to catch diseases. Because this wants to undertake conditioning from the daily life first. Adapt to the four seasons of climate change, adjust their life and living accordingly. According to the weather to add or remove clothes, do more aerobic exercise, early to bed and early to get enough sleep. Secondly, we should adjust our emotions, because the changes of mental state fluctuations will also damage healthy breath power, thus affecting the immunity of the human body. Therefore, we should maintain a good state of mind, know how to adjust body and mind, and avoid being affected by negative emotions. Finally, diet should be controlled, balanced and not partial food, diet should not be too greasy and spicy, should be more mild and light, and rich in nutrition. If these effects are not significant, medications can be used to regulate them appropriately. Obviously, the treatment methods of TRADITIONAL Chinese medicine have their own unique characteristics compared with western medicine, and the theories they are based on are also very different, of course, this is the place where the two shine.

## 5. Combination of TCM and Western medicine treatment plan

According to statistics, as of 0:00 On February 5, 2020, 214 confirmed cases had been treated with Qingfetuodutang in four pilot provinces, with a total effective rate of over 90%. Symptoms and imaging manifestations of more than 60% of the patients improved significantly, and 30% of the patients' conditions remained stable without worsening<sup>[4]</sup>. The average temperature recovery time of the patients was 2.64 days, and the symptom disappeared time was 5.15 days, which was obviously better than the pure western medicine treatment. The data of 52 patients were intercepted for the comparison of mortality and the conversion rate from mild to severe. Among them, 27 cases of general type, 6 cases of severe type and 1 case of critical type were treated in the integrated Chinese and Western medicine treatment group. Western medicine treatment group received 13 cases of general type, 4 cases of severe type and 1 case of critical type. There were 2 cases (7.4%) in the integrated Chinese and Western medicine group and 6 cases (46.2%) in the western medicine group. In the group of traditional Chinese and western medicine, 34 cases were transferred to hospitals, including 3 deaths, with a mortality rate of 8.8%. In the western medicine group, 1 died in 18 cases of treatment and 6 died in hospital transfer, with a mortality rate of 39%. After the combination of traditional Chinese and western medicine treatment, the mortality rate decreased to 22.7% of the pure Western medicine group, the rate of mild disease to severe disease was only 16% of the pure Western medicine group. Therefore, the combination of traditional Chinese medicine and western medicine is essential. The combination of the two shines brilliantly, which is of great help to the improvement of the therapeutic effect.

## 6. Summary

As you can see, in this outbreak, the combination of traditional Chinese and western medicine has significantly improved the rate of novel coronavirus treatment. Therefore, the combination of traditional Chinese and Western medicine must be recognized and promoted. In medicine, both Chinese medicine and western medicine have their own unique charm. Although they have completely different theories, methods and prescriptions, they both use their own ways to find cures for diseases. But sometimes, one treatment may not be complete, and that's when the combination of the two works best. Some people may still have different views on TCM, but data and clinical results prove that TCM has achieved great achievements in treatment, and its combination with western medicine has significantly improved the cure rate.

## References

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