

Important Strategies to Stop COVID-19: From Traditional Medicine to the Modern Vaccines

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Due to the ease of transportation in the modern world and the lack of familiarity with the human immune system, the new coronavirus quickly crossed the borders of the country after it first appeared in China late 2019. Through the rapid spreading to more than 171 countries in the world, it now becomes the biggest challenge after World War II. Tens of thousands of people, including many medical staff, have been infected and thousands have died, but effective and definitive treatment has not yet been reported. On the other hand, concerted global efforts to halt epidemi of the killer virus have been started few months ago and continue by now. To this end, many governments, organizations, institutions and charities around the world have begun to provide serious support to universities and pharmaceutical companies. Because of this monetary support, dozens of vaccines and antibodies have been developed that are in clinical trial stages and are likely to be released soon. In addition to the design of new vaccines and antibodies, other drugs, particularly those used for viral infections, and traditional herbal remedies have also been given the opportunity to re-emerge. Also, many projects have used the potential capacity of stem cells to control this infectious disease. The construction of new and innovative drugs is also on the agenda of scientists. Considering the genetic information of spike protein, several DNA, RNA and protein vaccines have been developed, so far. The spike protein is also a good target for many of the antibodies that are being made, which will neutralize the virus by binding to this protein that protruded from the viral surface. Some pharmacological antibodies, such as Kevzara, Leronlimab, and Actemra, which have previously been used to treat other conditions, have recently been suggested to reduce pulmonary inflammation and facilitate the pulmonary ventilation in the patients. Also, the antiviral medicines Lopinavir, Ritonavir, Remdesivir, Galidesivir, Oseltamivir, Darunavir, Triazavirin, and the antibiotic Brilacidin, and several other important drugs, have attracted the attention of physicians and researchers to combat the disease. The plant-based compounds such as the anti-malarial drug chloroquine, glycyrrhizinate diammonium from licorice root juice, and the Flavonoid baicalin have also shown positive results in controlling this viral disease.

This article describes the pioneering plans in the field of trial drugs in various stages of clinical trials for the treatment of covid-19. Throughout the thousands of years of history, mankind has repeatedly experienced the epidemi/pandemi of infectious and fatal diseases, and the recent pandemi will not be the last of them. Therefore, investing in strengthening the scientific and practical infrastructure of our universities and pharmaceutical companies, will bring about lower costs for our country through the similar health crises that will unavoidably happen in the future.

Keywords: Covid-19; Vaccine; Antibody; Antiviral medicine; Stem cell; Traditional herbal medicine.

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