



Yi-Chang Su, M.D., Ph.D.

Professor

Director of National Research Institute of Chinese Medicine

President, Chinese Medical Advancement Foundation

Chairman, Taiwan Association for the Education of Chinese Medicine

Chinese Taipei

The Development and Application of NRICM101 and NRICM102 in the Treatment of COVID-19

COVID-19 is severe global pandemic, with over 592 million confirmed cases and 6 million deaths as of August 17, 2022. Although countries around the world are offering vaccines as the primary strategy with the aggressive rollout of booster doses, the epidemic continues, and the death toll is still accumulating. Two novel traditional Chinese medicine formulas have been developed in Taiwan in response to the grave public health crisis. The NRICM101 is recommended for patients with mild and moderate disease, while NRICM102 is for those with severe and critical disease. Basic and clinical investigations were being conducted to assess the therapeutic effects of these formulas. The pharmacological assays demonstrated the effects of the two formulas in inhibiting the spike protein/ACE2 interaction, 3CL protease activity, viral plaque formation, and production of cytokines interleukin (IL)-6 and tumor necrosis factor (TNF)- α . The evidence suggested that NRICM101 and NRICM102 may disrupt disease progression through its antiviral and anti-inflammatory properties. Moreover, the significant inhibitory potency by NRICM101 and NRICM102 were unaffected by virus mutations, and a remarkable inhibitory effect on pulmonary thrombosis and pulmonary fibrosis by NRICM102 was also observed. During May to August 2021, we have obtained real world evidence for NRICM101 and NRICM102. Retrospective research showed that NRICM101 and NRICM102 had reduced the rate of progressing to severe illness and death in infected patients. Taken together, both NRICM101 and NRICM102 are good multi-target oral drugs for the prevention and treatment of COVID-19. Again, since April this year, Taiwan has been suffering from a serious Omicron outbreak, and NRICM101 and NRICM102 are being used in large quantities to treat confirmed cases. As these data are being recorded in the National Health Insurance Database, we will be able to analyze and present the real-world evidence in the near future.