



Letter to the Editor

The efficacy and safety of traditional Chinese medicines, modified Radix Fici Simplicissimae, combined with Western medicines amongst patients infected with the 2019 novel coronavirus (SARS-CoV-2) in tropical tourist area, China



keywords: SARS-CoV-2; Traditional Chinese medicines; Radix Fici Simplicissimae; Efficacy; Safety.

Pneumonia associated with the 2019 novel coronavirus is rapidly spreading around the world.¹ So far, no effective targeted drug has been approved globally, therefore, evaluation of an effective treatment that can result in clinical cure is urgently needed. The traditional Chinese medicines (TCMs) have been successfully used in the treatment of infectious diseases.²⁻⁵ In addition, Sanya, a tropical tourist area, have significant differences in the distribution of virus and treatment methods used, especially with respect to the use of TCMs. Radix Fici Simplicissimae, a TCM grown in south China, is widely used locally and has a variety of pharmacological effects, including strengthening spleen and supplementing lung functions, improving immunity, expelling phlegm to arrest cough, protecting gastric mucosa, glucocorticoid-like anti-inflammatory activity, and resistance against pathogens.^{6,7} Thus, we conducted this study to assess the efficacy and safety of TCMs containing modified Radix Fici Simplicissimae in combination with the Western medicines in the treatment of SARS-CoV-2 patients which were confirmed in Southern Hainan, and admitted in Sanya.

This study included 65 patients suffering from SARS-CoV-2 infection. Amongst them, 3 received decoction of TCMs (Hanshi Yufei and Maxing Shigan soup), 26 received formulations of TCMs, and 36 received both. Moreover, modified Radix Fici Simplicissimae was specifically used in 30 patients, while, the remaining 35 patients received other TCMs because of the diagnosis and treatment based on the overall analysis of the illness and the patients' condition. Antiviral agents were the most commonly used Western medicine and include doral lopinavir/ritonavir, or arbidol, intravenous ribavirin, and nebulized human interferon $\alpha 2\beta$.

Amongst the 65 patients who received the combination therapy, the overall recovery and mortality rates were 98.46% (64/65) and 1.54% (1/65), respectively, and 24 (36.92%) had treatment-related AEs of any grade, the most common being nausea (n = 15 [30.61%]), diarrhea (n = 8 [16.33%]), abdominal distension (n = 6 [12.24%]), and vomiting (n = 5 [10.20%]). No serious AEs were observed. The mortality rate in patients treated with a combination of TCMs and Western medicines (1.54%) was significantly lower than the national mortality rate (3.86%), observed during the same period. Moreover, the recovery rate of 98.46% was higher than that of national rate (72.58%). This encouraging findings may be related to the combined use of TCMs and Western medicines. Moreover, we observed that in Sanya, tropical tourist area in China, there was a slight regional difference in the recommended herbal formulae,

so we introduced Radix Fici Simplicissimae to strengthen the spleen and supplement the lung function.⁸

All of the AEs were of grade 1–2 severity that did not require additional therapy in this study, and no severe AEs were reported. The most common AE was treatment-related nausea of grade 1–2 severity, according to the available literature, nausea is one of the common ADR of lopinavir/ritonavir,⁹ and the probability of moderate to severe nausea is 7%. TCMs could result in reduced incidence of gastrointestinal AEs associated with lopinavir/ritonavir.

Although the findings of this study support the efficacy and safety of combination treatment, there were some limitations. Firstly, because of no availability of a globally approved drug for the treatment of SARS-CoV-2 infection, and the infectious nature of the pandemic, doctors might use non-standard drugs in the initial stage of the disease. Secondly, this was a single-arm study with small sample size. Thus, large randomized controlled trials are needed to confirm the efficacy and safety of combination of TCMs and Western medicines. Thirdly, the evaluation of efficacy might have been affected by the short follow-up time. We did not measure the viral loads and genotypic differences, which might be related to the disease progression and severity. Moreover, some patients had incomplete documentation of the exposure history and laboratory findings.

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Author contributions

Conceptualization: LL. Methodology: JC. Software: YL. Validation: BW and LL. Formal Analysis: ZW and YL. Investigation: ZW. Resources: JL, CL, DL, CX, and DY. Data curation: ZL, WZ, HZ, and SL. Writing - original draft: JC. Writing - review & editing: BW. Visualization: YT and RL. Supervision: LL. Project administration: LL. Funding acquisition: LL.

Conflict of interest

The authors declare no conflict of interest.

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Ethical statement

This study was approved by the Ethics Committee of Sanya Central hospital, Sanya, China.

Data availability

The data will be made available upon request.

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