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## Comment on “Curbing COVID-19 progression and mortality with traditional Chinese medicine among hospitalized patients with COVID-19: A propensity score-matched analysis” by Tseng et al.

## ARTICLE INFO

## Keywords

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Dear Editor,

With great interest, we read the article by Tseng et al. [1]. In their study, the authors investigated the association between the adoption of viral- and host-targeted traditional Chinese medicine (TCM) and the lower risk of intubation/ intensive care unit admission or death among patients with mild-to-severe COVID-19. We appreciated this propensity score-matched study, for it provides clinical evidence supporting the ability of TCM to handle COVID-19 at different stages. However, we would like to propose several issues that should be discussed.

First, the mode of oxygen therapy may be a confounding bias in the group NRICM102. In this study, patient data were extracted from the hospital information system of each participating hospital and included the use of supplemental oxygen, intubation, and invasive mechanical ventilation. However, the mode of oxygen therapy was not clarified. Jiang et al. demonstrated the mechanisms, efficacy, side effects, and benefit-to-risk ratio of various oxygen therapy techniques and their status or the potential to treat hypoxia in COVID-19 patients [2]. As a result, we suggested that importing the known confounder into the propensity score-matched model can improve the precision of this study.

Second, we recommended that subgroup analysis on age, comorbidity, and other important effect modifiers might be done to improve clinical application on patient selection. For example, several studies indicated that the severity of COVID-19 is age-specific. Levin AT et al. suggested that the overall infection fatality rates for COVID-19 should not be regarded as a fixed parameter but as intrinsically related to the age-specific pattern of infections [3]. Moreover, Hur K et al. reported that age, male sex, and a history of diabetes were independent risk factors associated with intubation [4]. After multivariable logistic regression, patients who were >60 years old (Odds Ratio, 3.9; 95% CI, 2.30–6.76), were male (Odds Ratio, 1.69; 95% CI, 1.04–2.77), or had a history of diabetes (Odds Ratio, 1.64; 95% CI, 1.02–2.66) were more likely to be intubated than patients who did not have those risk factors [4]. As a result, subgroup analysis is essential to identify the treatment effect of TCM in specific groups.

In summary, we thank the authors for conducting TCM in COVID among hospitalized patients. Despite unclarified points, we are still profoundly impressed by the authors' unprecedentedly significant study.

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## Author contributions

Pei-Yun Shih and Su-Boon Yong conceived the manuscript. Su-Boon Yong and James Cheng-Chung Wei critically revised the initial draft and contributed to preparation of the article.

## Declarations of interest

None.

## Data availability

No data was used for the research described in the article.

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