



# Response to Commentary on Lichen planus after COVID-19 infection and vaccination

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Received: 17 January 2023 / Revised: 17 January 2023 / Accepted: 18 January 2023 / Published online: 11 February 2023  
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**Keywords** Lichen planus · COVID-19 · Comorbidities

To the Editor,

We would like to address points raised by Drs. Mungmuntantip and Wiwanitkit in their Commentary on our review, Lichen planus after COVID-19 infection and vaccination. The authors raised the concern that a layperson's internet post may not guarantee a precise diagnosis. We would like to clarify that all of the references cited in our review were from peer-reviewed studies in which diagnoses of lichen planus were made by qualified healthcare providers through clinical or histopathological findings [1].

The authors also discussed how comorbidities may complicate the clinical relationship between lichen planus and COVID-19 infection and vaccination. In the vast majority of our references, the authors of these peer-reviewed studies strived to account for patients' comorbidities based on their documented medical histories [1]. After reviewing comorbidities, lichen planus onset as an adverse reaction to COVID-19 vaccination or sequelae to COVID-19 infection remained a likely possibility based on the close temporal relationship between these clinical events. However, we acknowledge that comorbidities may remain a confounding factor. In the Discussion section of our review, we also mentioned that immunocompromising comorbidities such as hypertension, diabetes, vitamin D deficiency, and vitiligo may be risk factors that increase susceptibility to LP after COVID-19 infection and vaccination [1]. We further invite the authors to

review the clinical generalizability of their reference when discussing comorbidities for lichen planus, as their reference is a case report on dengue after COVID-19 vaccination [2].

Finally, the authors raised the point that genetic diversity impacts the immune responses of vaccine recipients. We agree with this point and believe it opens interesting avenues for future research, but would like to add that attempting to control for genetic diversity in studies may be unfeasible.

We thank the authors for their commentary and interest in our work, and we welcome all future potential discourse on our review.

**Author contributions** HZ (lead) and SD (supporting) were responsible for conceptualization, data curation, formal analysis, investigation, methodology, project administration, and original draft preparation. Funding acquisition, resources, and software are not applicable to this study. SD (lead) and HZ (supporting) were responsible for the supervision, validation, and visualization. HZ (equal) and SD (equal) wrote, reviewed, and edited the manuscript.

**Funding** The authors declare no source of funding.

## Declarations

**Conflict of interest** The authors have no conflicts of interest to declare.

**IRB approval status** Exempt.

## References

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This reply refers to the comment available online at <https://doi.org/10.1007/s00403-023-02540-6>.

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