Letter to the Editor: Reply to Autoimmune Hepatitis and Coronavirus Disease 2019: Disease Outcomes and Tacrolimus Use

TO THE EDITOR:

We appreciate the interest of Dr. Ng[1] in our recently published study on the outcome of coronavirus disease 2019 (COVID-19) in patients with autoimmune hepatitis (AIH).[2] Some comments by the author prompt clarifications.

Concerning the comment on differences between the two study cohorts, we tried to match patients with AIH and non-AIH chronic liver disease for age, sex, presence of cirrhosis, and comorbid conditions (diabetes mellitus, hypertension, and heart diseases). The distribution of prognostic factors was still not the same. The AIH group was older, more commonly women, had a higher rate of cirrhosis, and also a lower frequency of comorbid conditions. These differences were, however, numerically small and did not have a significant effect on our main results.

Dr. Ng hypothesizes that similar outcomes in the patients with AIH and those with non-AIH liver disease may be related to immunosuppression. The aim of steroid therapy in AIH is different from that in COVID-19. Long-term low-dose steroid therapy in patients with AIH may blunt the initial immune response to COVID-19, while high-dose steroid therapy for COVID-19 aims to prevent an inappropriate immune response, or cytokine storm, in critically ill patients. More than half of our patients with AIH were not hospitalized, and two thirds maintained their immunosuppression unchanged.

We agree that tacrolimus may be a good, albeit unlicensed, therapy when patients with AIH are nonresponders or intolerant to standard therapy; however, it may be premature to suggest that tacrolimus has protective effects in COVID-19. One recent study suggested that the use of tacrolimus was associated with better survival,[3] another study did not show beneficial effects in liver transplant receipts with COVID-19.[4] A third study even reported that patients treated with cyclosporine/tacrolimus (for any reason) had a significantly increased risk of hospitalization for COVID-19 when compared to the general population.[5] In our study, only a few patients were on tacrolimus therapy. The limited data on AIH cohorts with COVID-19 and license-related barriers in many countries represent limitations for the routine use of tacrolimus in patients with AIH during COVID-19.

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