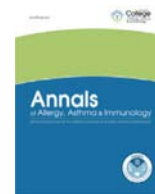




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Correspondence

Messenger RNA vaccines and neutralizing anti-severe acute respiratory syndrome coronavirus 2 antibodies in patients with immunodeficiency



We would like to share our ideas on the article entitled “Detection of neutralizing anti-severe acute respiratory syndrome coronavirus 2 antibodies in patients with common variable immunodeficiency after immunization with messenger RNA vaccines.”¹ Romano et al¹ concluded that “CVID patients must be included in COVID-19 vaccination programs because of the ability of mRNA vaccines to safely induce production of neutralizing antibodies in this category of patients.” Given that Romano et al¹ noted that the production of neutralizing antibodies did not mean protection, it is, therefore, necessary to have further studies for confirmation on the advantage of vaccines. Whether the messenger RNA (mRNA) can result in unwanted immunologic problems in a common variable immunodeficiency (CVID) case is also another important question. An association between CVID and autoimmunity was proposed.^{2,3} There are many reports on the possible association between mRNA COVID-19 vaccine and autoimmunity generation.⁴ A careful risk and benefit evaluation is needed for making any recommendation on using the mRNA COVID-19 vaccine among CVID cases.

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Authors' response



We understand the concerns expressed by Drs Mungmunpuntipantip and Wiwanitkit regarding the efficacy and safety of messenger (m)RNA vaccines in patients with common variable immunodeficiency (CVID); however, we still strongly stick to the conclusions expressed in our report.¹ With regard to efficacy, the aim of our study was to evaluate whether patients with CVID could generate neutralizing antibodies against severe acute respiratory syndrome coronavirus 2, and all but 1 actually did.¹ Clearly, as already mentioned in the article, evaluation of the clinical significance of these antibodies (ie, protection against severe manifestations of coronavirus disease 2019 [COVID-19] and death) requires further studies.¹ Nevertheless, it should not be overlooked that vaccine-induced cell-mediated immunity may as well contribute to vaccination efficacy.² Therefore,

prediction of vaccination efficacy should not be solely anticipated on the basis of antispikes antibody titers. Long-term adverse effects of COVID-19 vaccination are unknown across all categories of subjects being immunized; conversely, short-term adverse effects are generally mild and easily managed.^{3,4} Our patients with CVID have been followed up for more than 6 months since having completed the 2-dosage mRNA vaccine schedule, and none of them have developed or had flare-ups of autoimmune or other long-term inflammatory conditions; other studies have reported reassuring safety data as well.^{2,5,6} Furthermore, patients with rheumatologic diseases who have a myriad of autoimmune conditions have been thus far safely vaccinated with mRNA vaccines, with no apparent impact on disease activity and no further safety concerns in the short term.^{7,8} Severe adverse events, albeit rare, may nonetheless occur after vaccination, regardless of preexisting medical conditions. In any case, caution should be exercised in interpreting flare-ups of autoimmune diseases

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