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Correspondence Regarding "Tolerability of Coronavirus Disease 2019 Vaccines BNT162b2 and mRNA-1273 in Patients With Thymic Epithelial Tumors"

To the Editor:

We read the research article by Ballman et al.[1] recently published in *JTO Clinical and Research Reports* with great interest. The authors conducted a survey to evaluate the tolerability of two coronavirus disease 2019 (COVID-19) mRNA vaccines in patients with thymic epithelial tumors (TETs) and concluded that tolerability was comparable with that in the general population. These data are highly informative for clinicians, especially those involved in the treatment of patients with relatively rare thoracic tumors like TETs. However, the article was missing important information including treatment details. The purpose of this letter is to provide additional context for the results of Ballman et al.[1] and their implications for the vaccination of patients with TETs.

Despite the administration of more than 6 billion COVID-19 vaccinations worldwide, the safety of COVID-19 vaccines in patients with cancer remains poorly understood. Recently, several studies revealed that COVID-19 vaccines were well tolerated in patients with cancer, even those receiving active cancer treatment.[2,3] However, Peeters et al.[4] recently reported differences in the occurrence of adverse events among patients receiving some anticancer therapies. Moreover, Nelli et al.[3] found that systemic adverse events after COVID-19 vaccination were associated with female sex, Eastern Cooperative Oncology Group performance status 2, and granulocyte colony stimulating factor use in patients receiving active cancer treatment. According to the National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology, patients with TETs have many treatment options including cytotoxic chemotherapy, some of which may induce bone marrow suppression. Therefore, some patients in the study by Ballman et al.[1] might have been treated with granulocyte colony stimulating factor. On the basis of these previous findings, details on concomitant treatments administered in this cohort would be highly informative.

In addition, Nishino et al.[5] recently reported axillary lymphadenopathy after COVID-19 vaccinations of patients with thoracic malignancies. Specifically, the mRNA-1273 vaccine was associated with a higher frequency of axillary lymphadenopathy than the BNT162b2 vaccine. In the Ballman et al.[1] study, one patient (1 of 29, 3.45%) with TET who received the mRNA-1273 vaccine experienced axillary lymphadenopathy, whereas 1956 participants (14.03%) in the clinical trials of this vaccine experienced axillary lymphadenopathy after a second dose. However, the frequency of axillary lymphadenopathy after BNT162b2 vaccination was not stated by Ballman et al.[1] The frequency of axillary lymphadenopathy after BNT162b2 vaccination in patients with TETs remains unclear and is of high interest to clinicians.

Ballman et al.[1] concluded that COVID-19 vaccines were similarly tolerable among patients with TETs compared with the general population. Several other studies have reported that COVID-19 vaccines were well tolerated in patients with cancer, even those receiving active cancer treatment. Because few data are available regarding the impact of anticancer therapies on the safety of COVID-19 vaccines, the details of concomitant treatments are necessary to empower clinicians to make evidence-based decisions that are in the best interests of their patients.

Thank you for publishing this very interesting study.

CRediT Authorship Contribution Statement

Kazuki Takada: Manuscript preparation.

Shinkichi Takamori: Manuscript editing.

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