Editorial Comment

Editorial Comment from Dr Yuasa to Effect of active anticancer therapy on serologic response to SARS-CoV-2 BNT162b2 vaccine in patients with urothelial and renal cell carcinoma

The novel coronavirus disease 2019 (COVID-19) pandemic has completely changed the practice of medicine around the world and in Japan. Patients with malignant disease are known to have a much higher risk of severe COVID-19 and associated mortality.[1] Therefore, in 2020, early in the COVID-19 pandemic, in order to minimize the risk of infection among both patients and medical staff, we changed general medical practices by offering telephone consultations and prescriptions.[2] Fortunately, owing to a concerted global effort, several highly effective vaccines have been developed at an unprecedented speed.[3] In order to prevent infection and subsequent severe COVID-19 disease, vaccination is considered to be one of the most effective methods, especially, for patients with malignant disease undergoing anti-cancer therapies.[3]

In this issue of the *International Journal of Urology*, Togashi *et al*. reported on the serologic response to the BNT162b2 COVID-19 vaccine in patients with urothelial cancer (UC) and renal cell carcinoma (RCC).[4] After two administrations of this vaccine, the seropositivity rate of UC and RCC patients was 90% and 96%, respectively.[4] Meanwhile, in patients undergoing active anticancer therapy and immune checkpoint inhibitor (ICI) therapy, the seropositivity rate was 92% (53/58) and 90% (36/40), respectively.[4] Although the antibody titer in patients undergoing concomitant steroid administration was significantly lower than in those not receiving steroids, the seropositivity rate in patients with concomitant steroid use was 89%.[4] Togashi *et al*. concluded that active anticancer therapy was not significantly associated with seropositivity following the vaccination.[4]

The influence of the COVID-disease including the vaccination to the efficacies and safety profiles of anti-cancerous therapy are special concerns. Nowadays, ICIs are among the standard therapeutic tools for various cancers, including urologic malignancies. Immune-related adverse events (irAEs) are sometimes associated with high-dose steroid administration, and such treatment can possibly cause impaired humoral response to mRNA vaccines. Fortunately, most studies, including this study, provided encouraging results regarding the safety and immunogenicity of COVID-19 vaccines in ICI-treated patients.[4,5] However, further studies with longer follow-up periods are necessary to confirm that vaccination in cancer patients undergoing ICI therapy is safe and effective.

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Conflict of interest

None declared.

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