

Editorial Comment


Editorial Comment to A case of steroid-resistant cystitis as an immune-related adverse event during treatment with nivolumab for lung cancer, which was successfully treated with infliximab

Immune checkpoint inhibitors have been rapidly introduced for the treatment of metastatic urological cancers and other malignancies.^{1–3} Based on their promising anti-tumor efficacy and manageable safety profile, the medical treatment paradigm for patients with urological malignancies is changing dramatically.^{1–3} Excessively increased immune activity caused by the immune checkpoint blockade, however, sometimes causes inflammatory side effects called immune-related adverse events (irAEs).¹ Indeed, a wide variety of irAEs have been reported.³ Although most irAEs can be resolved by steroid administration, some cases are refractory and require additional immunosuppressive agents.¹

In this issue of *IJU Case Reports*, Fukunaga et al. reported a case of immune-related cystitis in a patient with lung cancer receiving long-term nivolumab therapy.⁴ After 77 courses of nivolumab, he complained of sudden-onset glans penile pain and micturition pain.⁴ After a complete urological investigation, he was diagnosed with immune-related cystitis.⁴ Although his symptoms abated immediately after the induction of steroid therapy, the symptoms and cystoscopy findings recurred during the steroid therapy.⁴ His immune-related cystitis was subsequently successfully treated with infliximab.⁴

I also experienced a case of non-bacterial cystitis in a patient receiving immune checkpoint inhibitor therapy, which promptly recovered following the administration of low-dose methylprednisolone. As I have not reported this case in the literature, non-bacterial cystitis as an irAE may not be so rare. However, this case was a steroid-resistant disease, which can be considered life-threatening. Indeed, treatment-related deaths have been reported in many clinical trials for immune checkpoint inhibitors.⁵ In addition to immune checkpoint inhibitors, other novel agents, including antibody-drug conjugates (ADCs), poly ADP-ribose polymerase (PARP) inhibitors, and so on, have recently appeared in clinical practice. In order to treat their adverse events and maximize their

efficacies, the organization of a multidisciplinary team consisting of urologists, medical oncologists, and disease specialists is recommended.

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Conflict of interest

The author declare no conflict of interest.

Author Contributions

Takeshi Yuasa: Conceptualization; data curation; project administration; visualization; writing – original draft; writing – review and editing.

References

- 1 Postow MA, Sidlow R, Hellmann MD. Immune-related adverse events associated with immune checkpoint blockade. *N. Engl. J. Med.* 2018; **378**: 158–68.
- 2 Yuasa T, Urasaki T, Oki R. Recent advances in medical therapy for urological cancers. *Front. Oncol.* 2022; **12**: 746922.
- 3 Fujiwara R, Kageyama S, Yuasa T. Developments in personalized therapy for metastatic renal cell carcinoma. *Expert Rev. Anticancer Ther.* 2022; **22**: 647–55.
- 4 Fukunaga H, Sumii K, Kawamura S, Okuno M, Taguchi I, Kawabata G. A case of steroid-resistant cystitis as an immune-related adverse event during treatment with nivolumab for lung cancer, which was successfully treated with infliximab *IJU Case Rep.* 2022; **5**: 521–3.
- 5 Ramos-Casals M, Brahmner JR, Callahan MK et al. Immune-related adverse events of checkpoint inhibitors. *Nat. Rev. Dis. Primers.* 2020; **6**: 38.

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