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Editorial Comment

Editorial Comment to A case of sarcoidosis-like reaction associated with immune checkpoint inhibitors in metastatic renal cell carcinoma


Immune checkpoint inhibitors, which have become a mainstay of treatment for advanced renal cell carcinoma, are associated with immune-related adverse events (irAEs). The mechanisms involved in the development of irAEs are incompletely understood, however, the most frequent mechanism of irAEs involves the aberrant activation of T cells targeting healthy tissue. Sarcoidosis-like reaction (SLR) is one of the rare irAEs. SLR involves systemic inflammation characterized by granuloma formation. SLR most commonly occurs in the lung, skin, and lymph nodes, but it can also affect the eyes, heart, nerves, and other organs.

In this issue of *IJU Case Reports*, Katagiri *et al.*¹ reported the case of this rare irAE in metastatic renal cell carcinoma patients who received nivolumab and ipilimumab. Although a pathological confirmation could not be obtained, they clinically diagnose SLR based on serum marker levels (ACE and sIL2R) and imaging study (gallium scintigraphy). After the withdrawal of immunotherapy, SLR regressed without disease progression. Their case suggested that immune-related SLR did not require intensive therapy, except for the interruption of immunotherapy.

The differential diagnosis of SLR from cancer progression is crucial for optimal management, however, SLR may mimic metastases and neither imaging nor serum marker could not differentiate it from metastases. Biopsy of affected sites is crucial and should be considered whenever possible, as discussed by the authors. Urologists who prescribe checkpoint inhibitors need to be aware of this rare irAE because cases previously diagnosed as progression or pseudoprogression could have been with SLR.

In this case, SLR regressed without tumor progression after withdrawal of checkpoint inhibitors. The possible association

between the development of irAEs and efficacy of checkpoint inhibitors has been widely reported.² As for immune-related SLR, Chorti *et al.*³ reported that there was no difference in recurrence rates between melanoma patients with SLR (2/10, 20%) and those without SLR (7/35, 20%). Further accumulation of cases with immune related SLR is warranted to evaluate the association of SLR and efficacy of immunotherapy.

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DOI: 10.1002/iju5.12393

Conflict of interest

The authors declare no conflict of interest.

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