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KIDNEY CANCER

Response to nivolumab in RCC: RECISTing progression

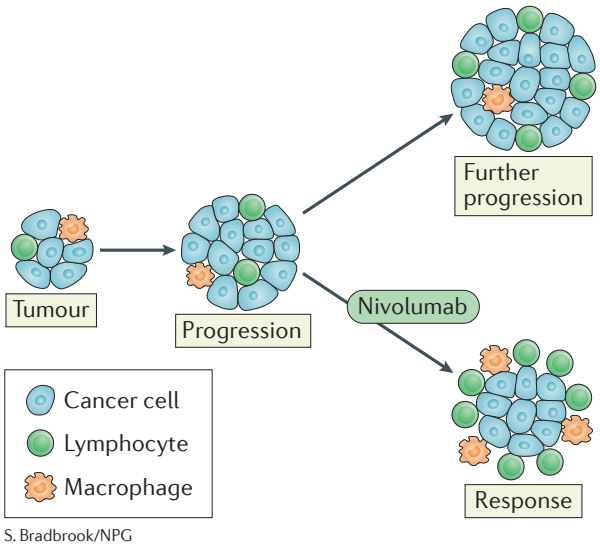
Checkpoint inhibition is revolutionizing the treatment approach for a variety of different cancers; however, patients' responses to this type of therapy are often delayed. Now, data from a subgroup of patients with metastatic renal cell carcinoma (mRCC) reveal robust responses to treatment in those who remained on treatment with the anti-PD-1 antibody nivolumab, on the basis of investigator-assessed clinical benefit, despite their tumours having progressed according to RECIST criteria (>20% increase in tumour size and/or development of new lesions).

Lead author Saby George explains: "This study was conceived following our observation of patients receiving this type of therapy having non-traditional responses — some of these patients had initial tumour growth, followed by subsequent tumour shrinkage." In this subgroup analysis of a phase II trial investigating the effects of nivolumab (0.3, 2 or 10 mg/kg) in 168 patients with mRCC, 36 patients continued to receive treatment with nivolumab beyond first progression. Compared with overall response rates of 20%, 22% and 20% in the 0.3, 2 and 10 mg/kg groups of the phase II trial, respectively, 12 of the 36 patients (33%) who remained on treatment beyond progression had a response, according to RECIST 1.1 criteria (defined as a 30% reduction in tumour volume). Furthermore, patients receiving nivolumab beyond initial progression also had superior progression-free survival outcomes compared with those not treated beyond progression. When corrected for the prolonged duration of treatment, patients treated beyond progression also had a reduced risk of treatment-related adverse events.

Similar to the experience in patients with melanoma or non-small-cell lung cancer, remarkable responses were observed in certain patients. George highlights: "we observed a patient with initially progressive mRCC while receiving nivolumab in the phase II trial. The patient's progressive disease was in the brain. This study allowed treatment continuation after the first progression (after treatment for the brain metastases)." This patient elected to continue therapy and now, "this patient is still alive 4.5 years after initial progression on the same drug. Many other patients like this exist and this amazing antitumour effect would not have been observed, had we not continued nivolumab after the initial RECIST-defined progression".

George concludes: "this study demonstrates that patients who are treated beyond progression have longer survival compared with those who are not; this observation highlights an unmet need to optimize the use of nivolumab, and other checkpoint inhibitors."

Peter Sidaway



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