

KIDNEY CANCER

SUNITINIB: 2/1 IS SUPERIOR TO 4/2

Sunitinib, an antiangiogenic agent, is the first-line treatment of metastatic renal cell carcinoma (mRCC); however, the adverse effects of this treatment pose a problem for clinical management of many patients. Now, the newly published findings of a phase II clinical trial demonstrate that use of a 2/1 dosing schedule, comprising 2 weeks of treatment followed by 1 week of rest, is superior to a 4/2 schedule in terms of both greater efficacy and fewer adverse events.

Lead author Jae Lyun Lee explains the rationale for this approach: “the first patient treated in our institution with the standard 4/2 schedule achieved a partial response after the first cycle, but he experienced severe adverse events. The adverse events started to occur during weeks 2–3 and worsened during weeks 3–4.”

In order to further test these anecdotal observations, patients with mRCC were randomized to receive sunitinib on either a 2/1, or 4/2 dosing schedule, with 6-month failure-free survival selected as the primary end point.

Patients receiving sunitinib 2/1 had improved failure-free survival after 6 months of treatment (63% versus 44%) with significantly fewer incidences of neutropenia ($P=0.037$) and fatigue ($P=0.017$), with a trend towards fewer adverse events of any type. In secondary analyses, a greater frequency of responses to treatment was observed in the 2/1 group (47%) versus the 4/2 group (33%), with a small improvement in median overall survival (30.5 versus 28.4 months, respectively).

Lee concludes “Sunitinib given at a 2/1 schedule is more tolerable, less toxic, and might be more effective in terms of response rate and depth of response.”

Comparisons of the efficacy of two treatment regimens are traditionally confined to phase III clinical trials, although in the absence of support from industry, a phase II clinical trial proved to be a more realistic approach, requiring fewer resources.

These results have clear implications for the clinical management of patients with mRCC “In clinical practice, I use a 2/1 schedule rather than 4/2 schedule” confirms Lee.

Peter Sidaway

Original article Lee, J. L. *et al.* Randomized phase 2 trial of sunitinib four weeks on and two weeks off versus two weeks on and one week off in metastatic clear-cell type renal cell carcinoma: RESTORE trial. *Ann. Oncol.* doi:10.1093/annonc/mdv357

CORRECTION

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In the version of this article originally published online, there was an error in the fourth paragraph; “reduced” should have read “improved”. The corrected sentence is as follows: “Patients receiving sunitinib 2/1 had improved failure-free survival after 6 months of treatment...”. This error has been corrected for the print and online versions.